Figure 1A

PSTN

Land Lines ~ 133   Cell I/O ~ 131   Internet Input ~ 129

| Telecom I/O Server ~ 123 | Receiver Server ~ 125 | HTML XML Server ~ 127 |

| Traffic Manager ~ 117 | Customer Database ~ 119 | Merchant Database |
| | | 121 ~ |

Tower Traffic Manager ~ 115

Network Server   ~ 109

111 ~   IP   Other Protocols ~ 113

Tower Systems   ~ 103

105 ~   CDPD   Other Protocols ~ 107

Handheld Appliances   ~ 101

Figure 1B

Figure 1C

Figure 1D

Location

L5
L4
L3
L2
L1

Time

6 am 8 am 10 am 12 pm 2 pm 4 pm 6 pm 8 pm

| Biographic Data	Data	Confidence	Correlation
Name	Sue	High	Yes
Gender	Female	High	Yes
Age	13	Medium	Yes
Ethnic Background	Chinese-American	Medium	No
Demographic Data			
Culture	American	Low	No
Region	East Coast	High	Yes
Likely Family Income	High	Low	No
Preferences Data			
Action Movies	High Interest	High	No
Hip-Hop Music	Low Interest	Low	No
Clothing from The GAP	High Interest	High	Yes
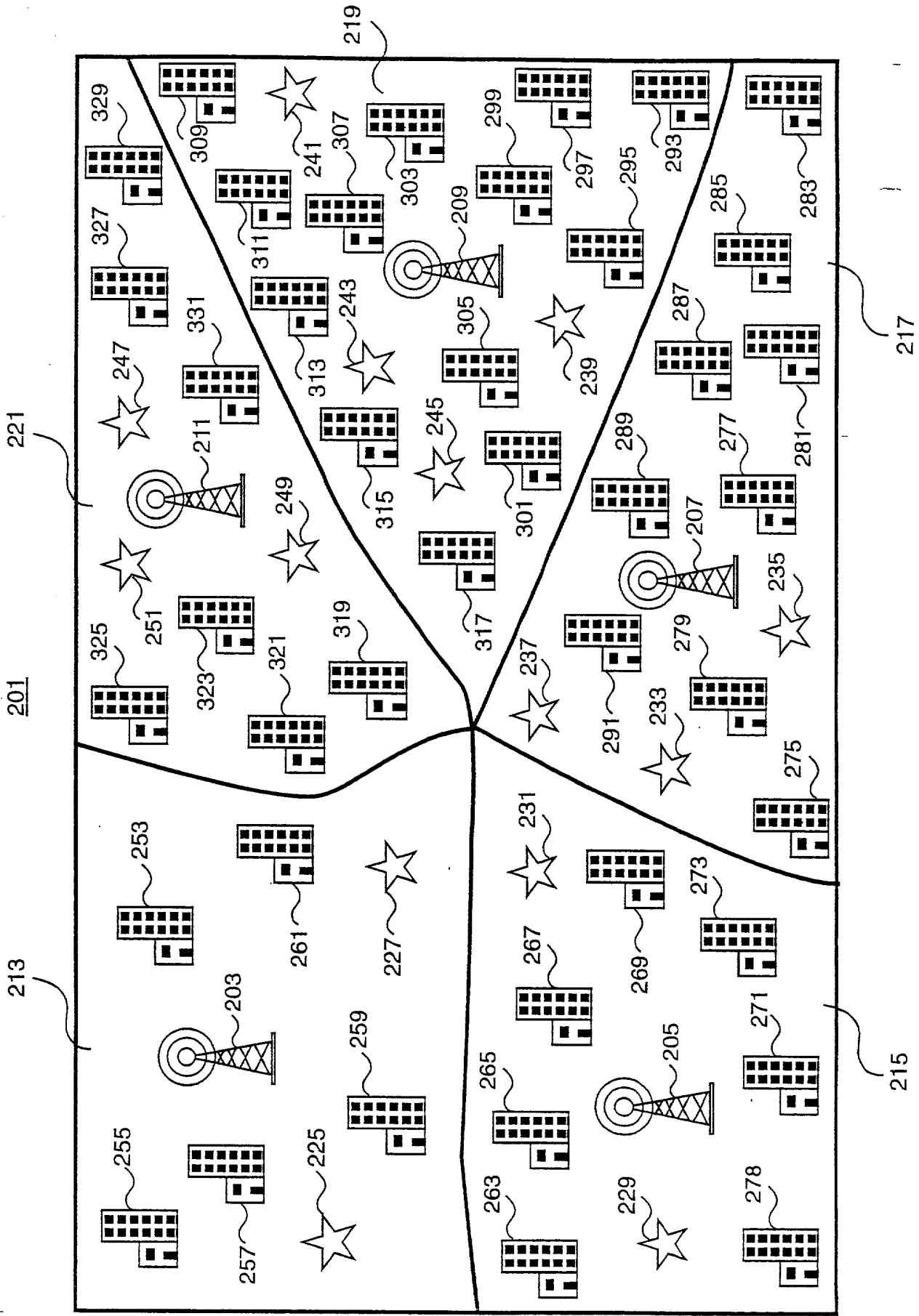
151 163 165 167 169 153 171 173 175 155 177 179 181

157 159 161

Figure 1E

Figure 1F

Tower No.	Region	Adjoining Regions	Favorite Places	Network Affiliates
203	213	221	225 Riding Stables	253 Game Arcade
		215	227 Water Park	255 Video Store
				257 Taco Stand
				259 Book Store
				261 Riding Supply Store

Tower No.	Region	Adjoining Regions	Favorite Places	Network Affiliates
205	215	213	229 Aunt Jane's House	263 24-Hour Gym
		217	231 Linear Park	265 Ice Skating Rink
		221	233 Pottery Supply Store	267 Sporting Goods Superstore
				269 Promdress Shop
				271 Belgian Chocolate Store
				273 Pet Store
				278 Model Train Store

Tower No.	Region	Adjoining Regions	Favorite Places	Network Affiliates
207	217	219	235 Candy's House	275 Corn Maze
		221	237 Resale Boutique	277 Aquarium
		215		279 Museum
				281 I-MAX Theatre
				283 Movie Theatre
				285 Laser Tag Facility
				287 Pizza Place
				289 Zoo
				291 Public Library

Tower No.	Region	Adjoining Regions	Favorite Places	Network Affiliates
209	219	217	239 Home	293 Mall #1
		221	241 School	295 Mall #2
			243 Work	297 Chinese Food
			245 Suzy's House	299 K-Mart
				301 Target
				303 Record Store
				305 Batting Cages
				307 Golf Driving Range
				309 Computer Superstore
				311 Boy's Club
				313 Church #1
				315 Restaurant #14
				317 Bicycle Shop

Figure 1G (4 of 5)

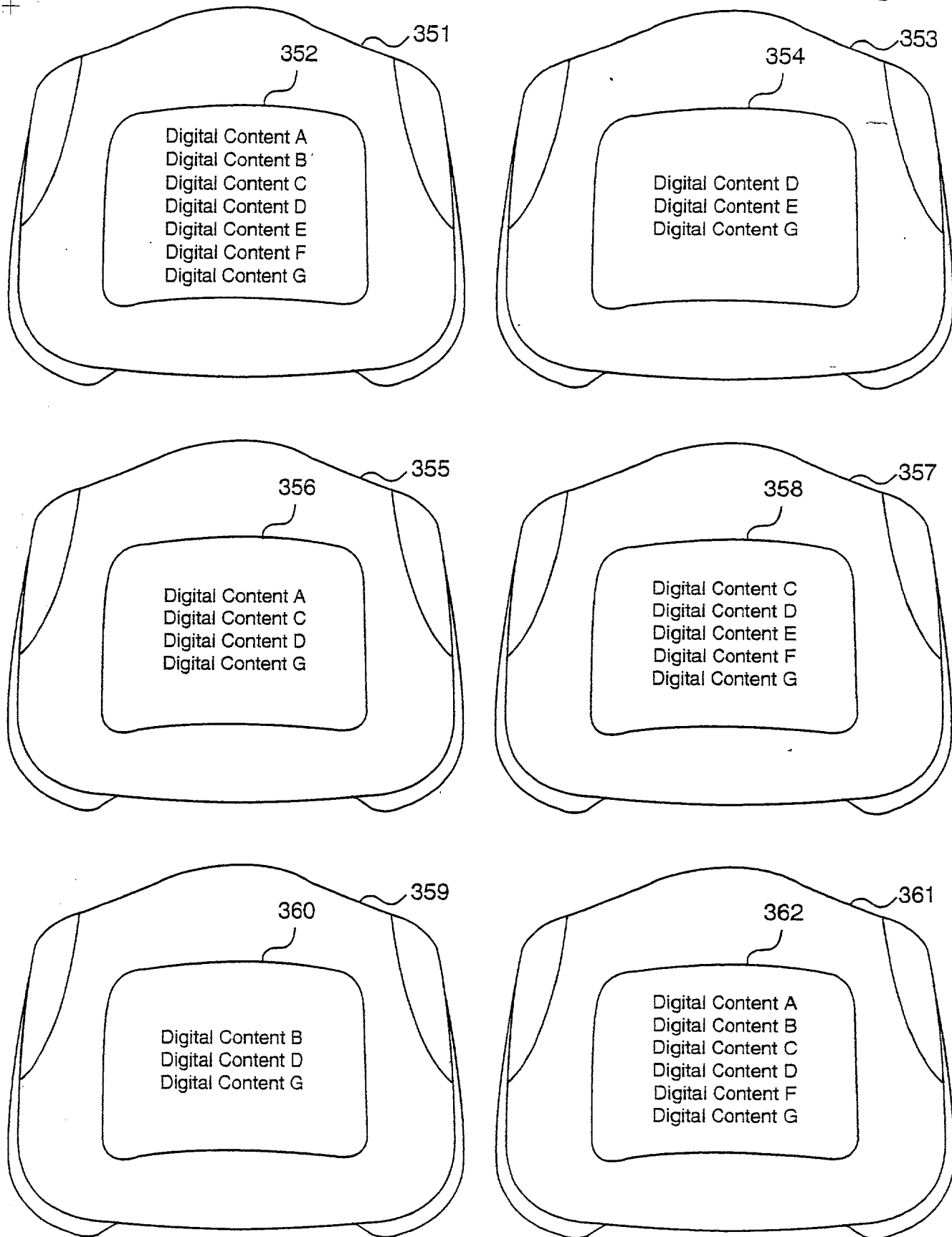| Tower No.	Region	Adjoining Regions	Favorite Places	Network Affiliates
211	221	219	247 Uncle Clay's House	319 Metro Stop
		217	249 The Gap	321 Starbucks
		215	251 Grand Mother's House	323 Bowling Alley
		213		325 Antique Mall
				327 Tennis Facility
				329 Car Stereo Superstore

Figure 1G (5 of 5)

351

352

Digital Content A
Digital Content B
Digital Content C
Digital Content D
Digital Content E
Digital Content F
Digital Content G

353

354

Digital Content D
Digital Content E
Digital Content G

355

356

Digital Content A
Digital Content C
Digital Content D
Digital Content G

357

358

Digital Content C
Digital Content D
Digital Content E
Digital Content F
Digital Content G

359

360

Digital Content B
Digital Content D
Digital Content G

361

362

Digital Content A
Digital Content B
Digital Content C
Digital Content D
Digital Content F
Digital Content G

Figure 1H

363

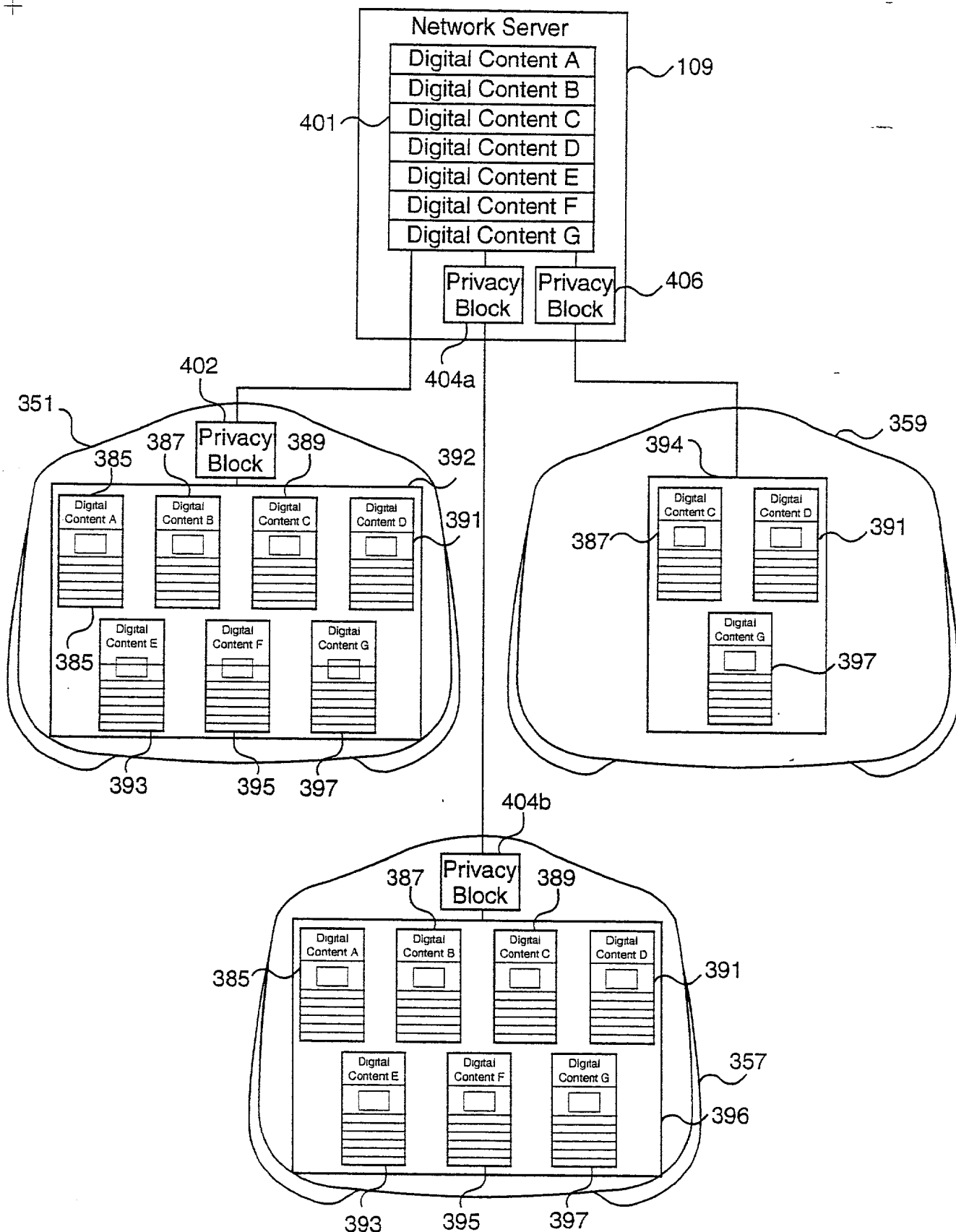| Digital Content ID 365	Playable Digital Content 367	Source 369	Type 371	Subject 373	Energy Required to Play (Units) 375	Energy Earned for Playing (Units) 377	Preferred Location 379	Preferred Time 381	Period 383
Digital Content A (385)	Movie	Merchant #12	Advertisement	X, Y	0	5	LATLONG1	After School	Incrementally Larger with Location
Digital Content B (387)	Text and Alarm	Government Entity	Warning	Weather	0	0	Various Changing	Immediate	One Time Only
Digital Content C (389)	Graphical Icon	Friend #1	Email Message		2	0	N/A	ASAP	7 Days
Digital Content D (391)	Text Message	Acquaintance #3	Request for Chat		5	0	N/A	ASAP	3 Hours
Digital Content E (393)	Executable Spreadsheet	Merchant #2	Survey	L, M	0	20	LATLONG2	Between 12/1 and 12/25	25 Days
Digital Content F (395)	Text Message	School	Announcement	Sporting Event	1	0	N/A	Between 3:00 pm and 10:00 pm	Incrementally Larger for 7 Days
Digital Content G (397)	Calendar File	Soccer Team	Schedule		3	0	N/A		User Initiated for 2 Days

Figure 1I

Digital Content A	Digital Content B	Digital Content C
Movie	Severe Storm	(mailbox)
385	387	389

Digital Content D	Digital Content E	Digital Content F
Want to Chat?	Survey 1.____ 2.____ 3.____ 4.____	Announcement
391	393	395

Digital Content G
Link to Calendar

398

397

Figure 1J

Network Server

Digital Content A
Digital Content B
Digital Content C
Digital Content D
Digital Content E
Digital Content F
Digital Content G

109

401

Privacy Block
Privacy Block

406

402

404a

351

387
385
Privacy Block
389
392

391

Digital Content A
Digital Content B
Digital Content C
Digital Content D

385

Digital Content E
Digital Content F
Digital Content G

393   395   397

394   359

387
Digital Content C
Digital Content D
391

Digital Content G
397

404b

387
Privacy Block
389

385
Digital Content A
Digital Content B
Digital Content C
Digital Content D
391

Digital Content E
Digital Content F
Digital Content G

357

396

393   395   397

Figure 1K

Contextual User Profile (407)

User/Appliance	Static Components (423)			Dynamic Data Components (425)							
	Biographic (423)	Demographic (423b)	Cultural (423c)	Hard (427a)				Soft (427b)			
				Latitude Longitude (425a)	Time (425b)	Date (425c)	Available Energy (425d)	Food Pref. (425e)	Entertainment Preferences (425f)	Relationship Preferences (425g)	Privacy Block (425h)
351	B1	DM3	C1	LATLONG1	4:00 pm	12/5	130	F1	E1	R3	P1
353	B3	DM2	C2	LATLONG2	4:30 pm	12/5	43	F2	E3	R2	P2
355	B2	DM1	C3	LATLONG3	5:00 pm	12/5	62	F3	E2	R1	P3
357	B1	DM2	C1	LATLONG4	4:00 pm	12/5	227	F3	E1	R1	P4
359	B3	DM3	C2	LATLONG5	4:30 pm	12/5	39	F2	E3	R2	P5
361	B1	DM3	C3	LATLONG6	5:00 pm	12/5	200	F1	E2	R3	P6

409, 411, 413, 415, 417, 419, 421

Figure 1L

Figure 1M

Figure 1N

Relationship Network as the content distribution mechanism

Friends

Merchants

Organizations

Parent

Broadcast
Support Node

Service Provider

Authority

Self-
created
club

Region
(D/FW)

NODE

• Type
• Place
• Time
• Network Energy Level
  (Balance)
• Store Content
• ACL
  (permissions)
• Set of Link
  Ratings
• Set of Links
• Content
  Associations
• Node Movie

Awareness Updates

Authorization

Message

Content (generic flashlet)

Network Energy

Message

Request to Authorize

Generic Content

ID can be found

General
Content
Pool

Specific Pools

Content on
- Blocked by
  • PG Rating
  • Region
  • Prerequisites
– Find things you like
– Find things similar linked nodes like
– Find new things (always be default)
– Find unfamiliar content or previously not liked

Figure 10

Figure 2A

Figure 2B

Figure 2C
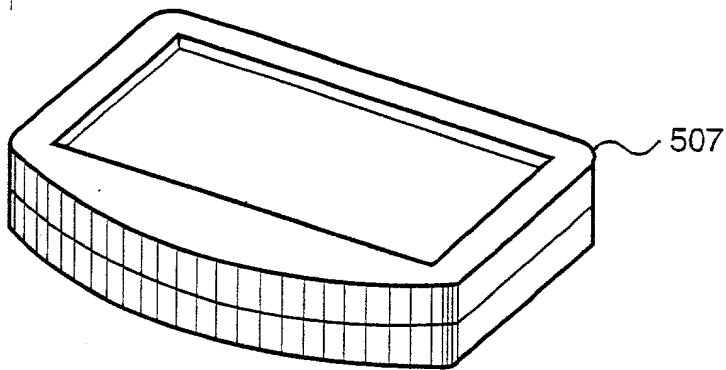
Figure 2D
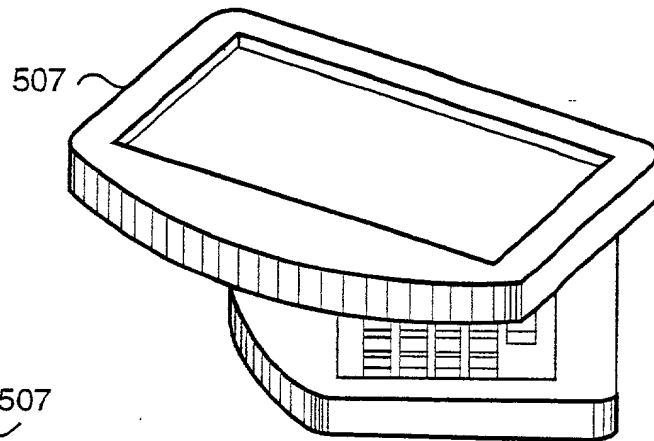
507

Figure 2E

507

507

509

511

Figure 2F

507

509

511

Figure 2G

517

513

515

Figure 2H

517

513
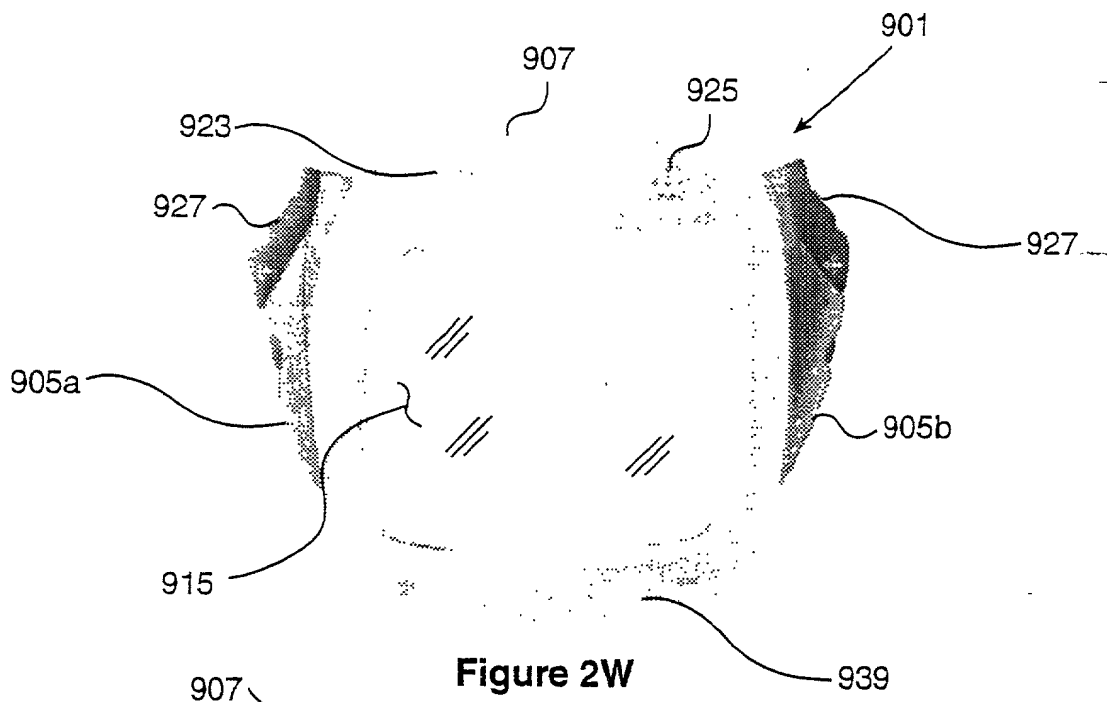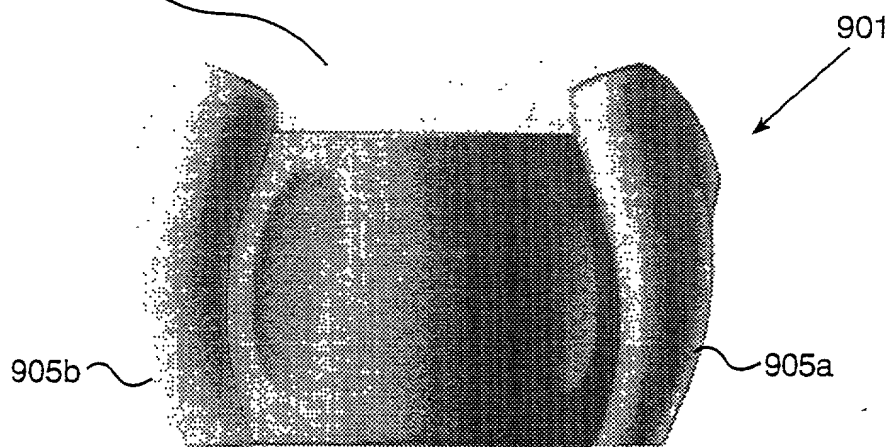
515

Figure 2I

517

515

513
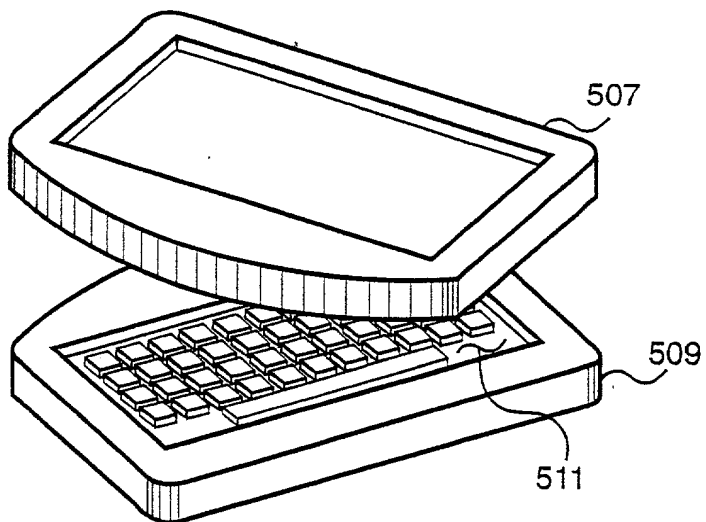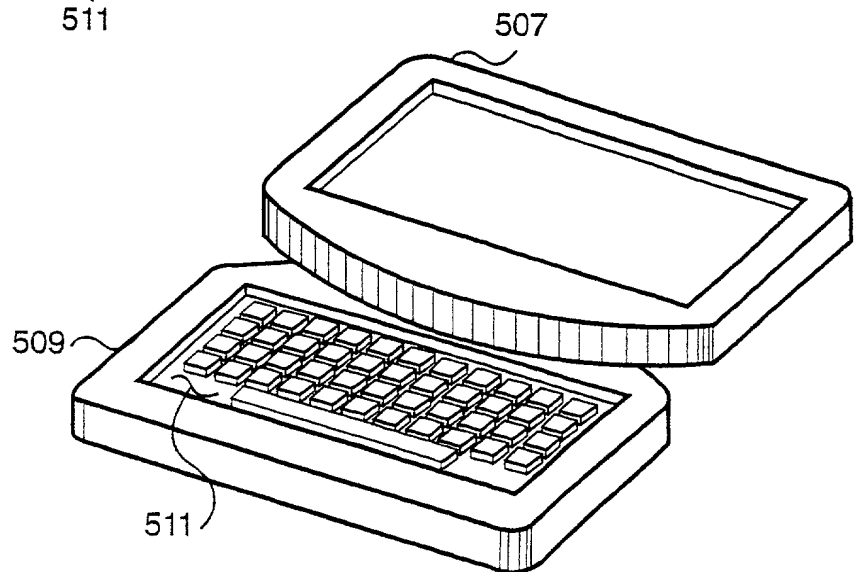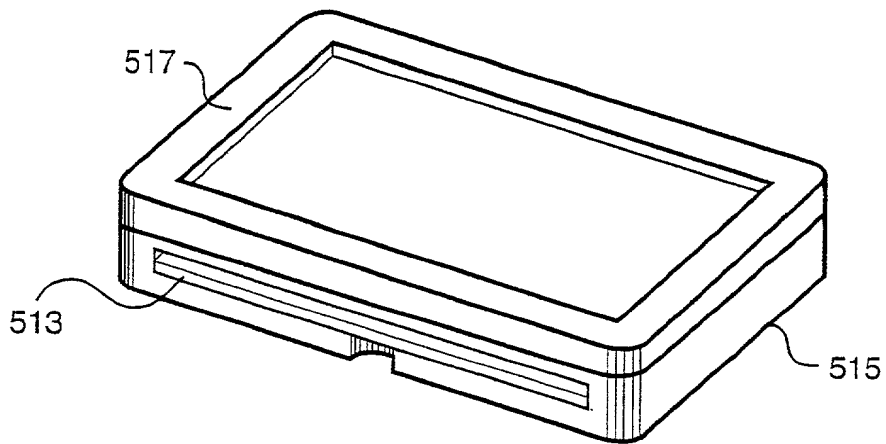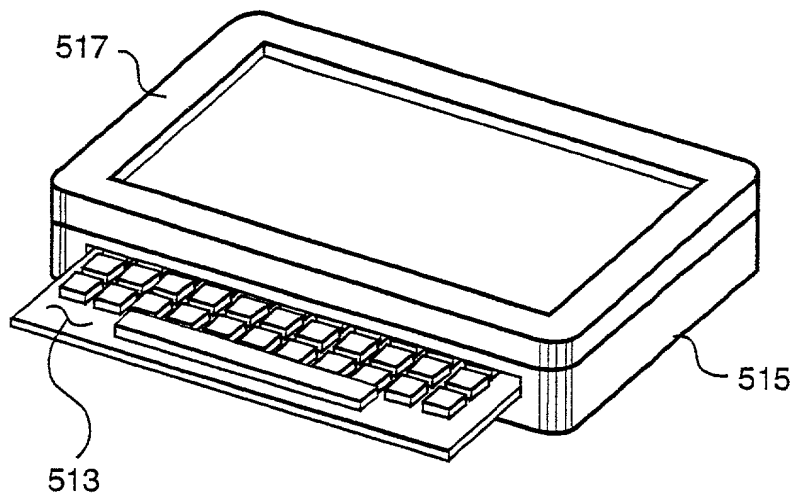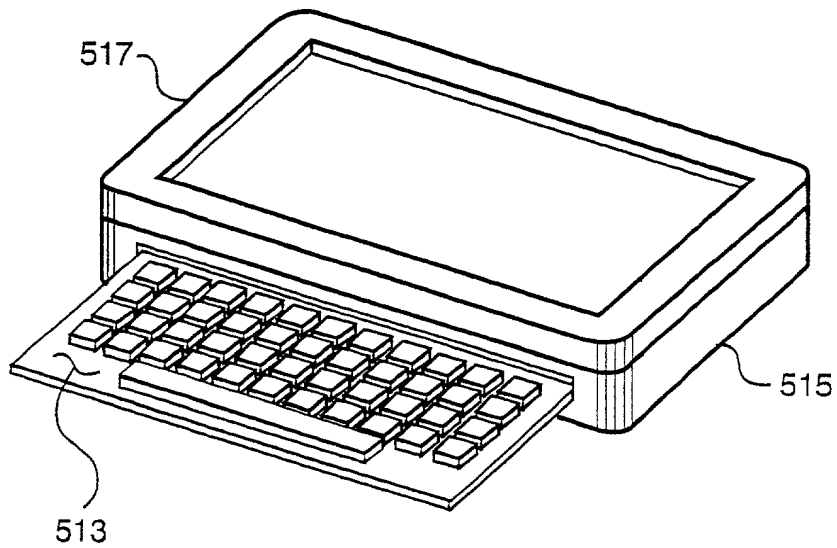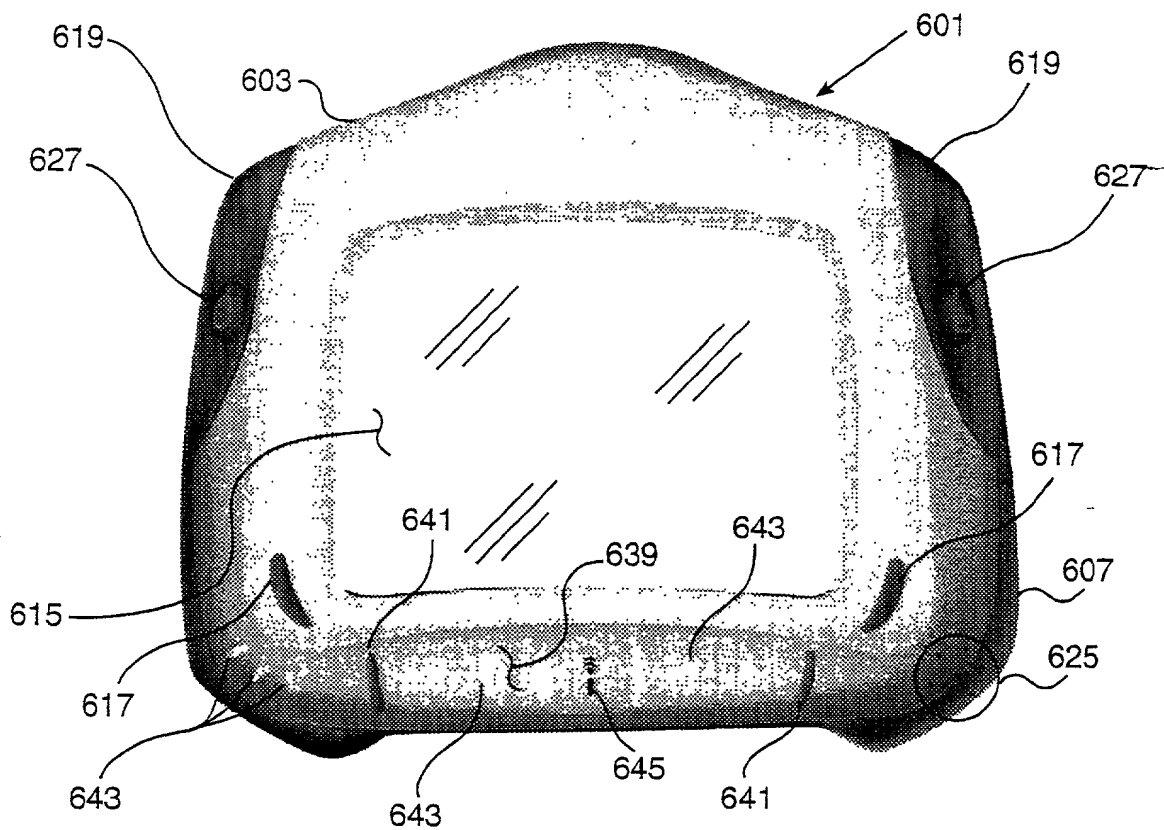
Figure 2J

Figure 2K

Figure 2L

Figure 2N
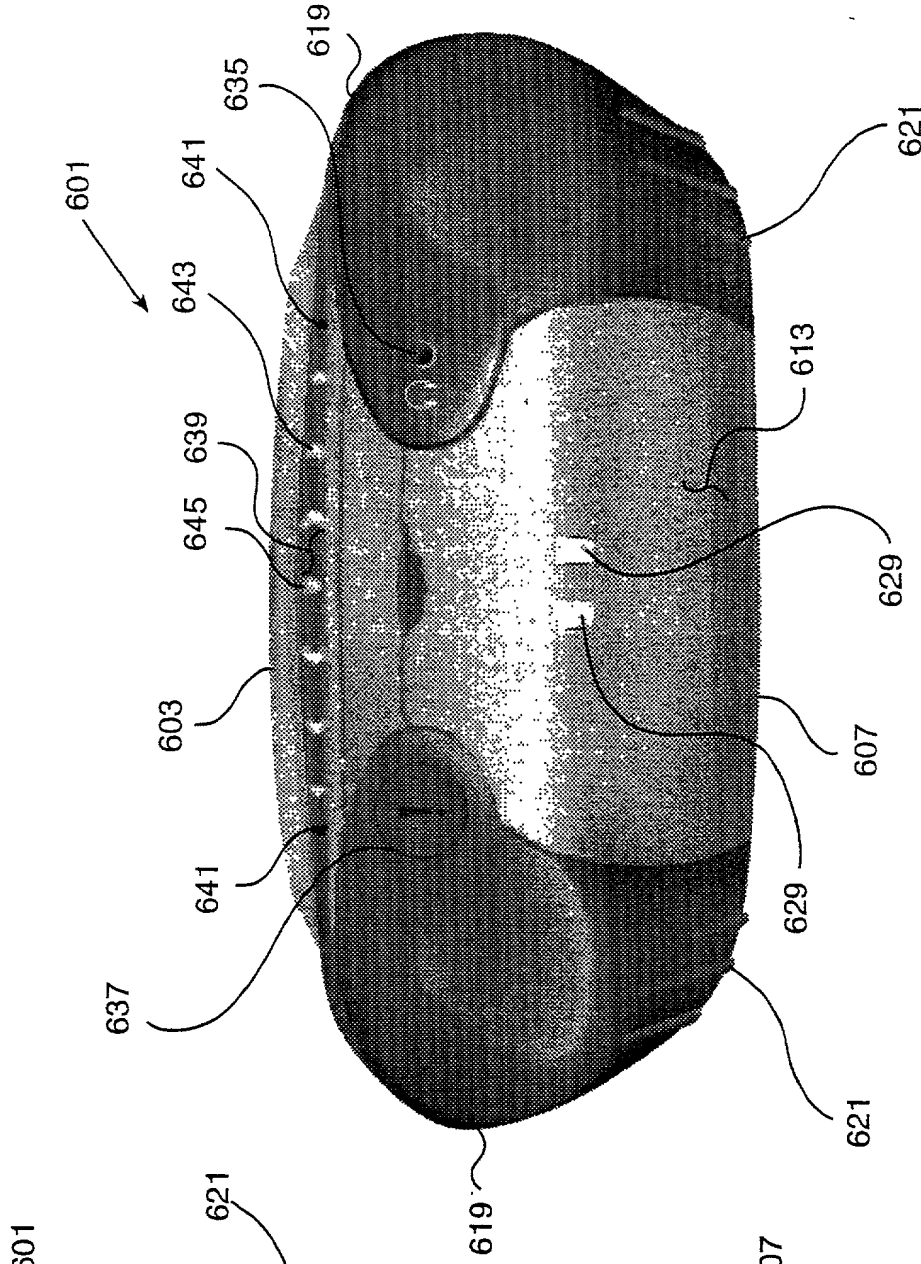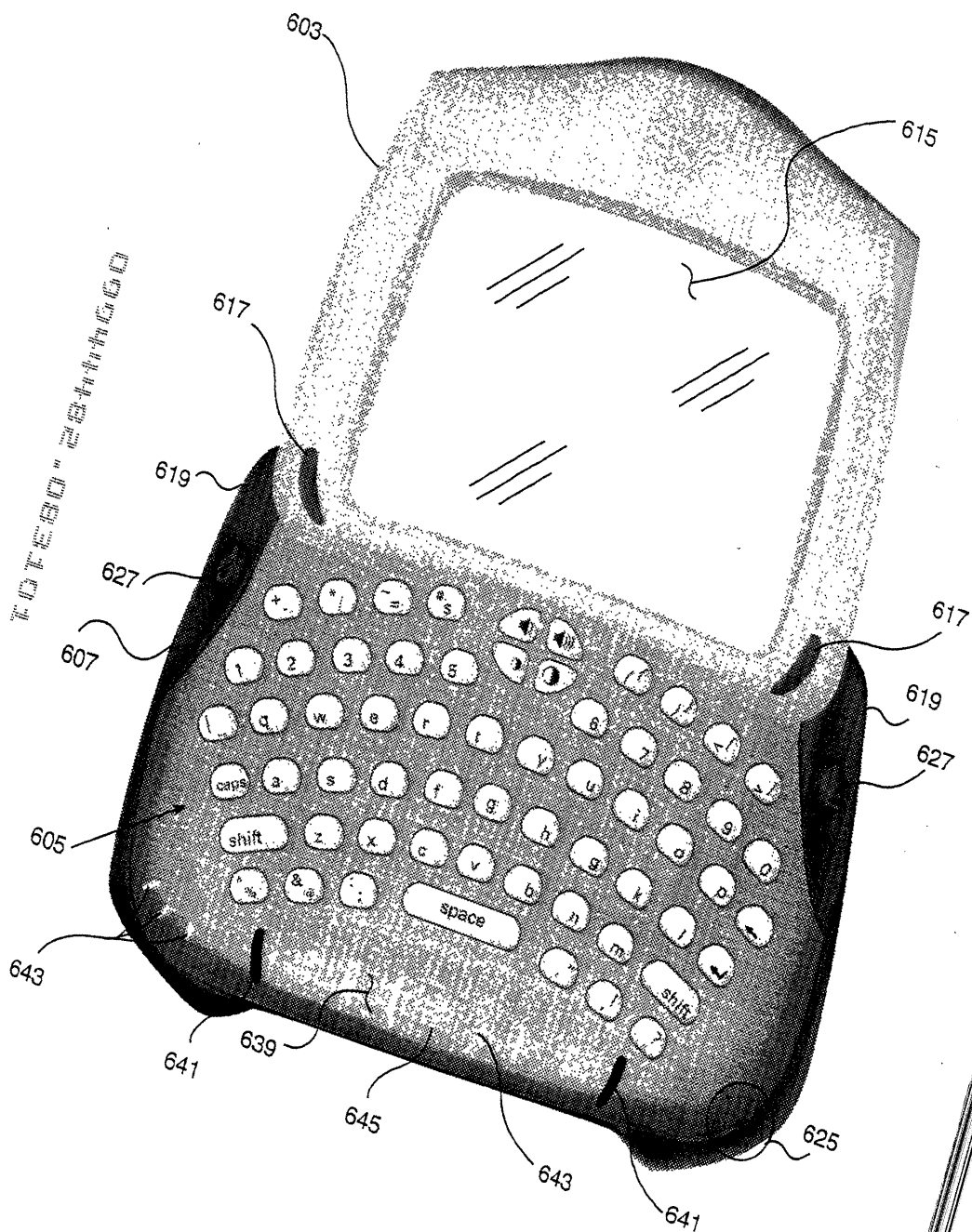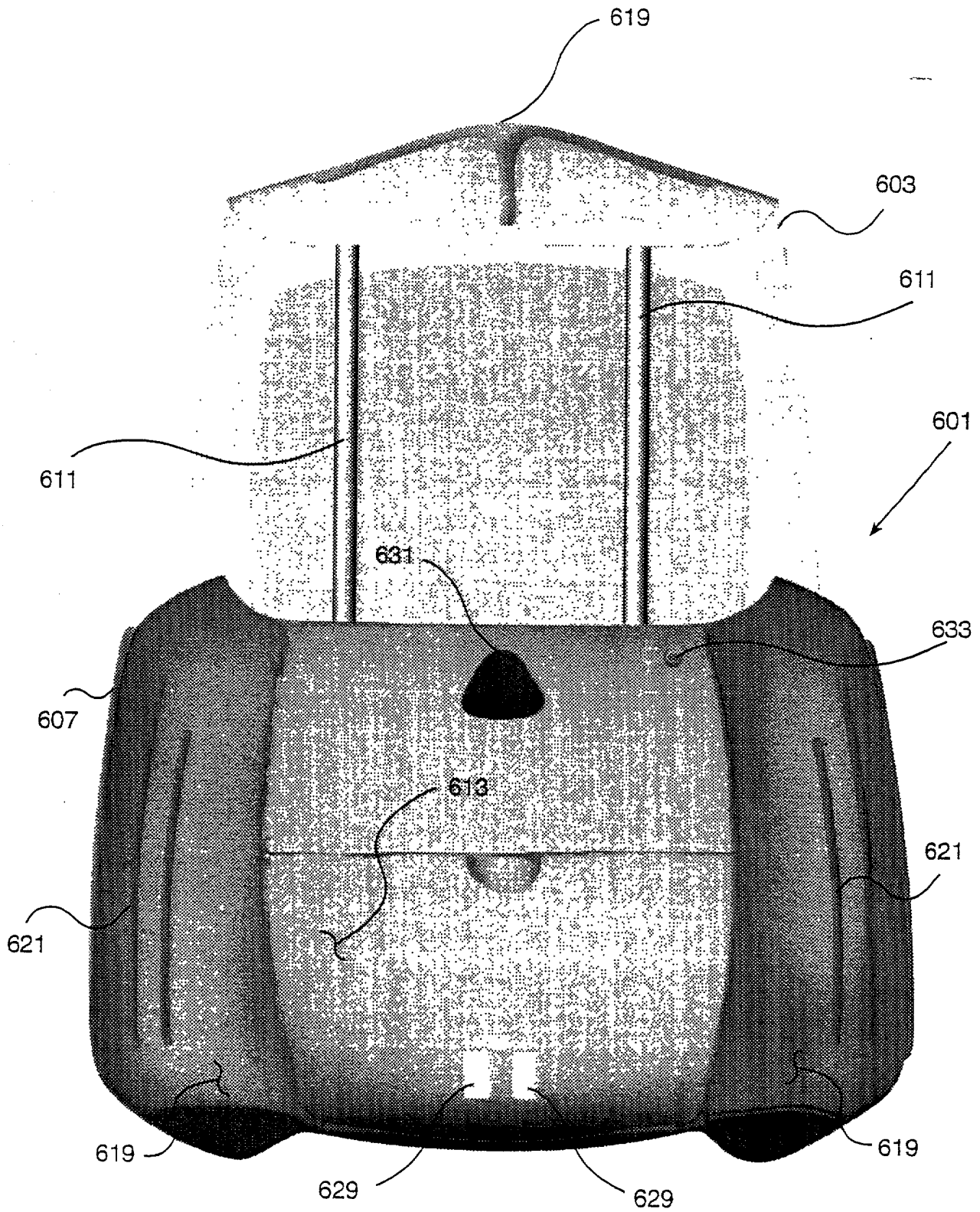
Figure 2M

Figure 20

Figure 2P

701

703

729

707

727

701

Figure 2R

727

701

703

739

723

Figure 2S

701

715

703

727

725

723

739

707

Figure 2Q

Figure 2U

Figure 2T

815　　　　　　　　　　　　　　　　803

801

827　　　　　　825　　　　　　823

827　　　　　　　　　　　　　　827

805

839
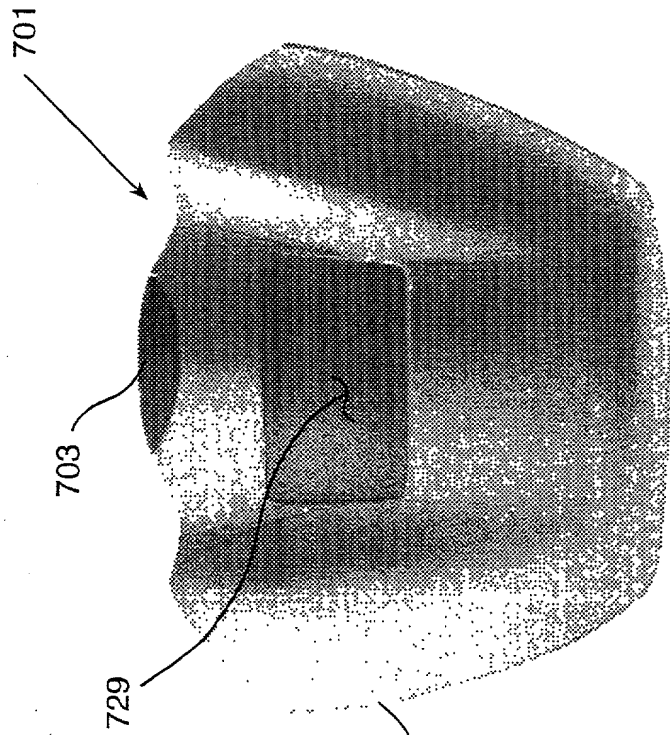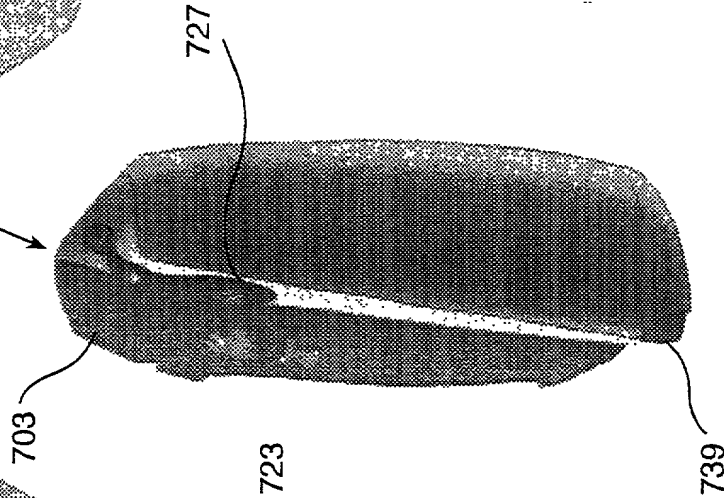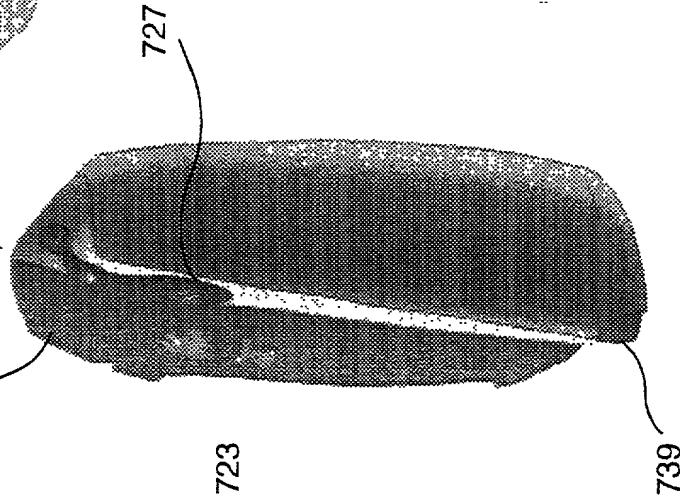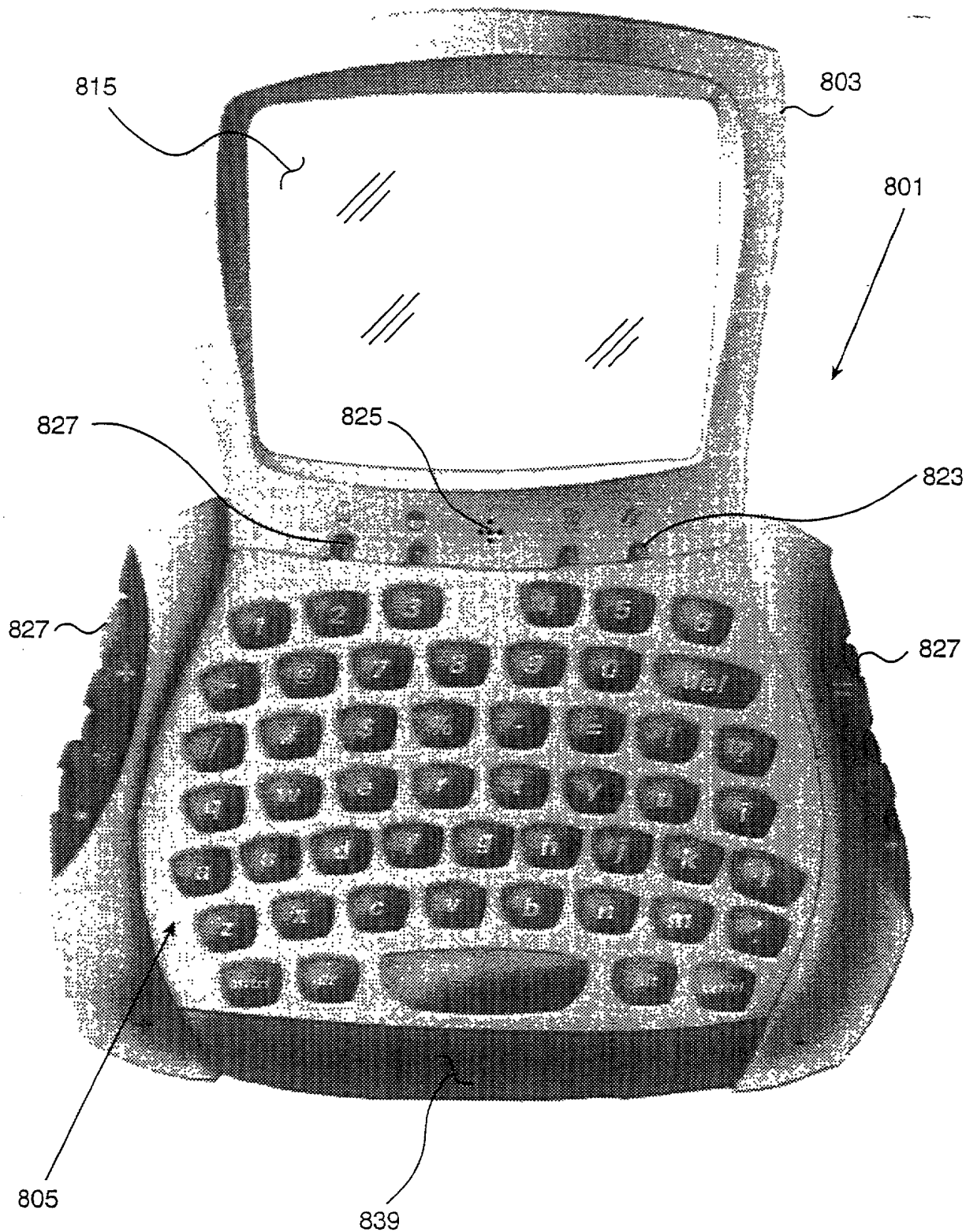
Figure 2V

Figure 2W

Figure 2X

Figure 2Y

Figure 2Z

927

905b

925

901

923

907

939

915

905a

927

Figure 3A

1537	1527	1528	1507	1507 1509
Screen	Thumbboard	Analog Responder	GPS	CDPD Modem
Graphics Controller	Thumbboard Controller	Analog Responder Controller	GPS Stack	TCP/IP Stack

1500

1505

1551 1559 1553 1554 1566 — Serial IO 1555 1567 — Serial IO 1557 1571

Video Device Driver	Thumbboard Device Driver	Analog Responder Device Driver	GPS Communication Device Driver	CDPD Communication Device sDriver
API	API	API	API	API

1561 1565 1564 1569 1573

Operating System

1575

File System

1576 1577

Flash Rendering Engine

1579

Application Scheduling / User Input Control

1585

Application	Application	Scripting API

1581 1583

Custom Application	Custom Application

1587 1589

Figure 3B

Service Provider 2001

Network Treasury 2041

Network Energy Market 2043

Network Market Output 2047

Network Market Input 2045

Network Energy 2049

New Members 2051

2053

2055

2057

Account

Cash 2027
2009 Network Affiliate #1
Credit 2029
2011 Network Affiliate #2
Equity 2031
2013 Network Affiliate #N
2003

Goods 2033
2015 Merchant #1
Services 2035
2017 Merchant #2
Infra-Structure 2037
2019 Merchant #N
2005

Digital Content (Shareware GUI) 2079
2021 Member #1
Digital Content (Game) 2081
2023 Member #2
Digital Content (Text) 2083
2025 Member #N
2007

Account
2061

Figure 4A

Figure 4B

Figure 4C

Member #1

Recruitment
Energy 2096

2021

Recruitment

2097

New
Member #1

Recruitment Energy 2096

Start-up Energy 2098

Appliance 2099

Service Provider

2001

Membership

Start-up
Energy 2098

Recruitment

Appliance 3003

New
Member #2

3001

Membership

Figure 4D

3001

Type of Input Element 3003	Non-Biasing 3005	Starting Position 3007	Needs On-Screen Indicator 3009	Continuous 3011
One-Dimensional Touch Pad 3013	Yes	No	No	Yes
Elongated Button 3015	Yes	No	No	Yes
Touch Screen with Graphical Slider 3017	Yes	No	Yes	Yes
Jog Wheel 3019	No	Yes	Yes	Yes
Scroll Wheel 3021	No	No	Yes	Yes
Thumb Wheel 3023	No	No	Yes	Yes
Linear Sliding Knob 3025	No	Yes	No	Yes
Touch Screen with Graphical Radio Buttons 3027	Yes	No	Yes	No
Dedicated Buttons on Keyboard 3029	Yes	No	No	No
Two-Dimensional Touch Pad 3031	Yes	No	No	Yes

Figure 5A

Figure 6A
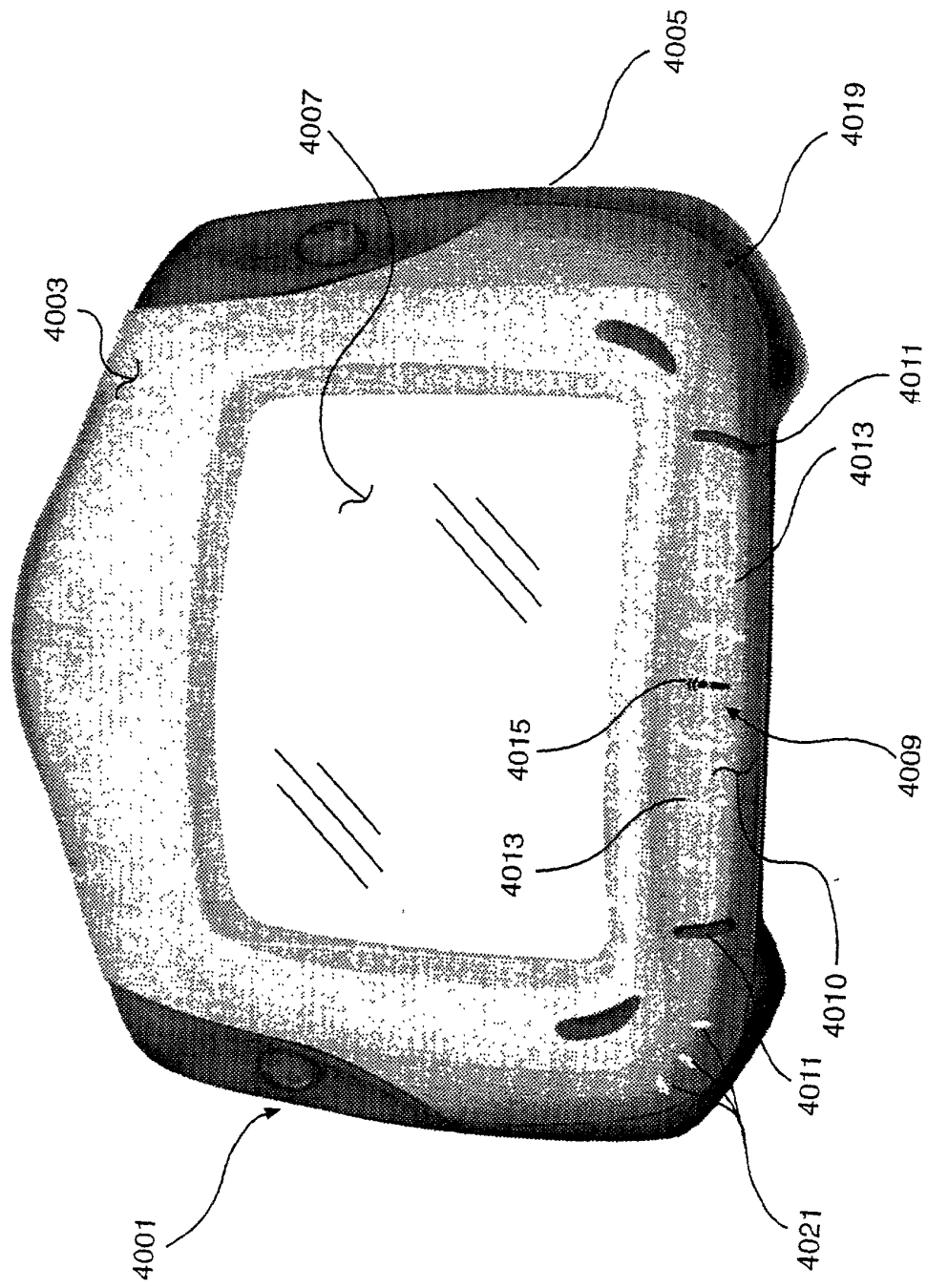
Figure 6B

Hey :)
Do you like to hang out
at coffee bars?

Figure 6C

Figure 6D

TELEFON Settings

4003

Hey :)
Do you like to hang out
at coffee bars?

Love 'em

[Hate 'em]

4007

4027

4005

4019

4011

4035

4009 4015

4033

4031

4017

4023

4025

4029

4021

4010

4013

4011

4001

Figure 6E

4003

4007

4041b

4005

4019

4011

4013

4015

4013

4013

4009

4010

Hey :)
Do you like to hang out
at coffee bars?

4001

4017
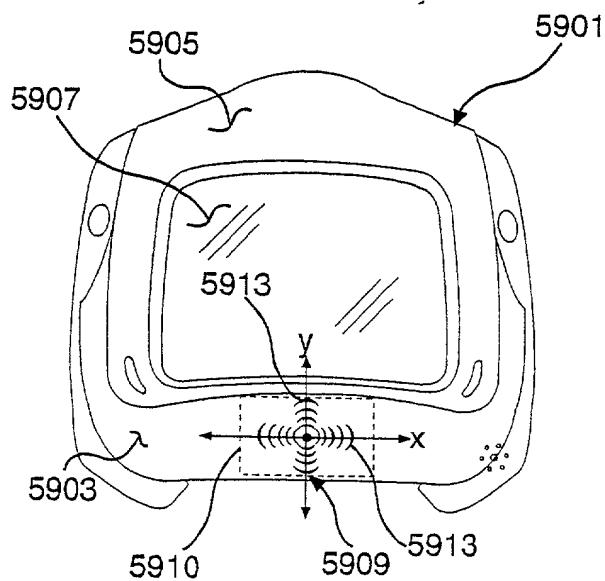
4023

4041

4041a

4021

4011

Figure 6F

Hey :)
Do you like to hang out
at coffee bars?
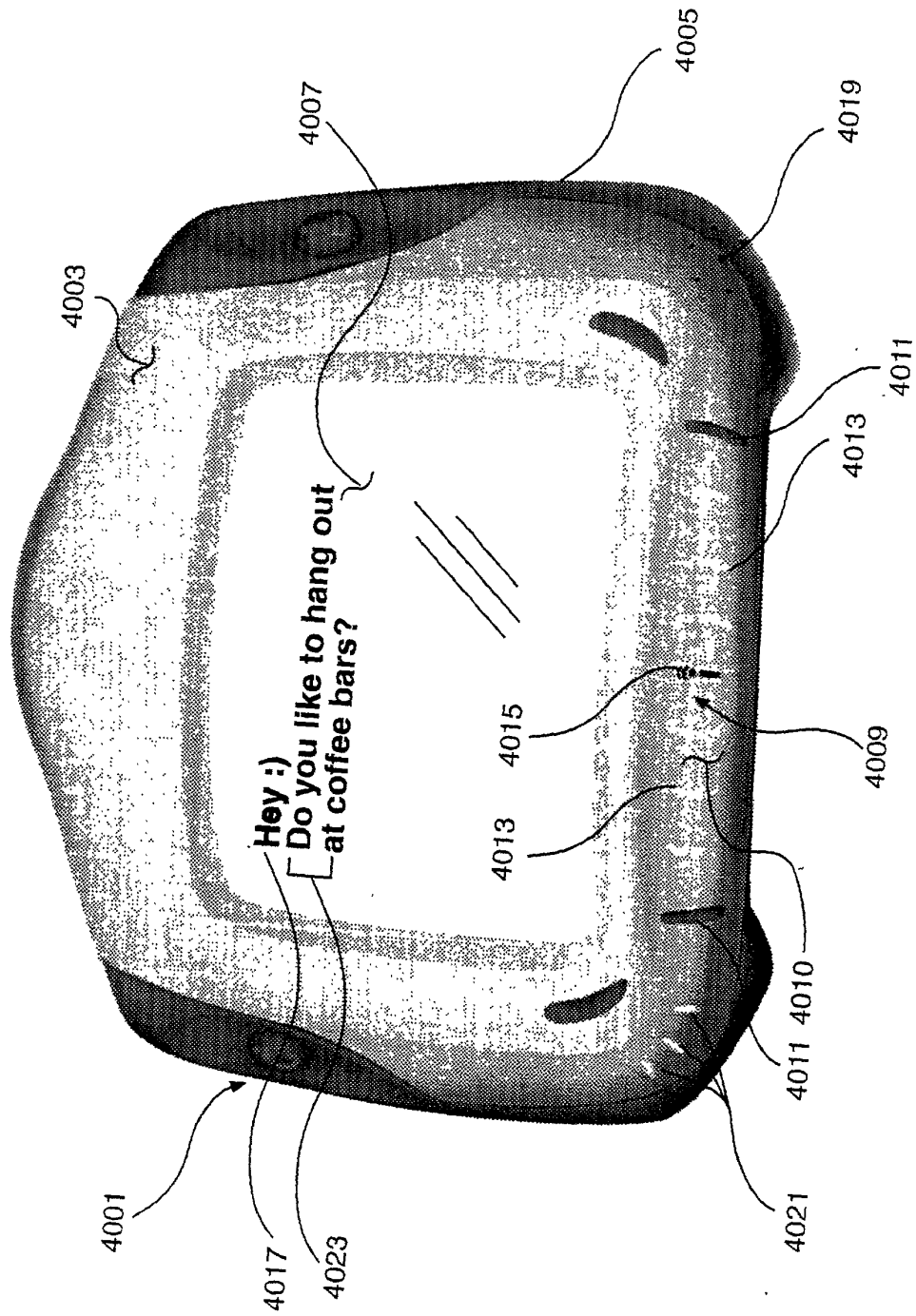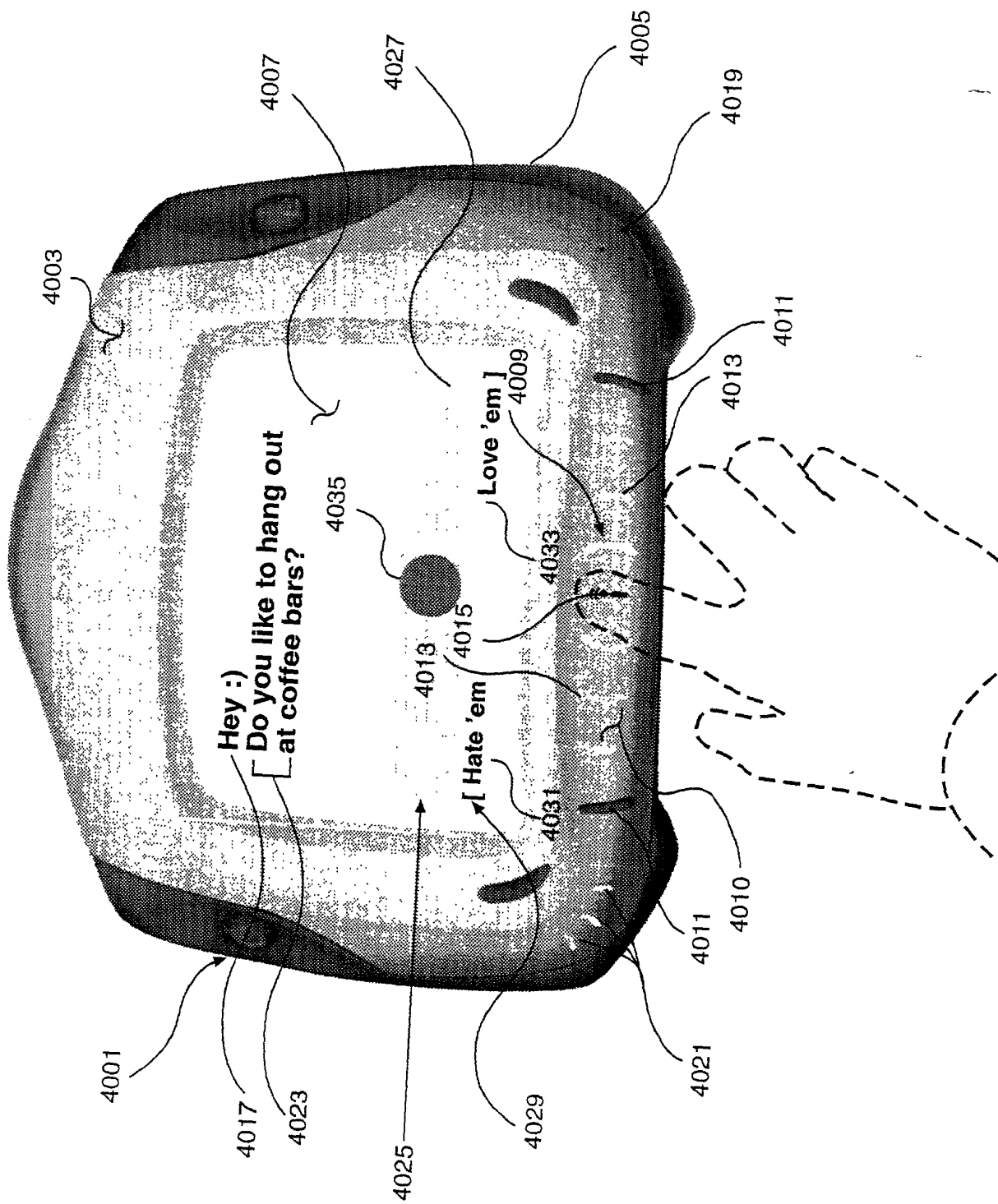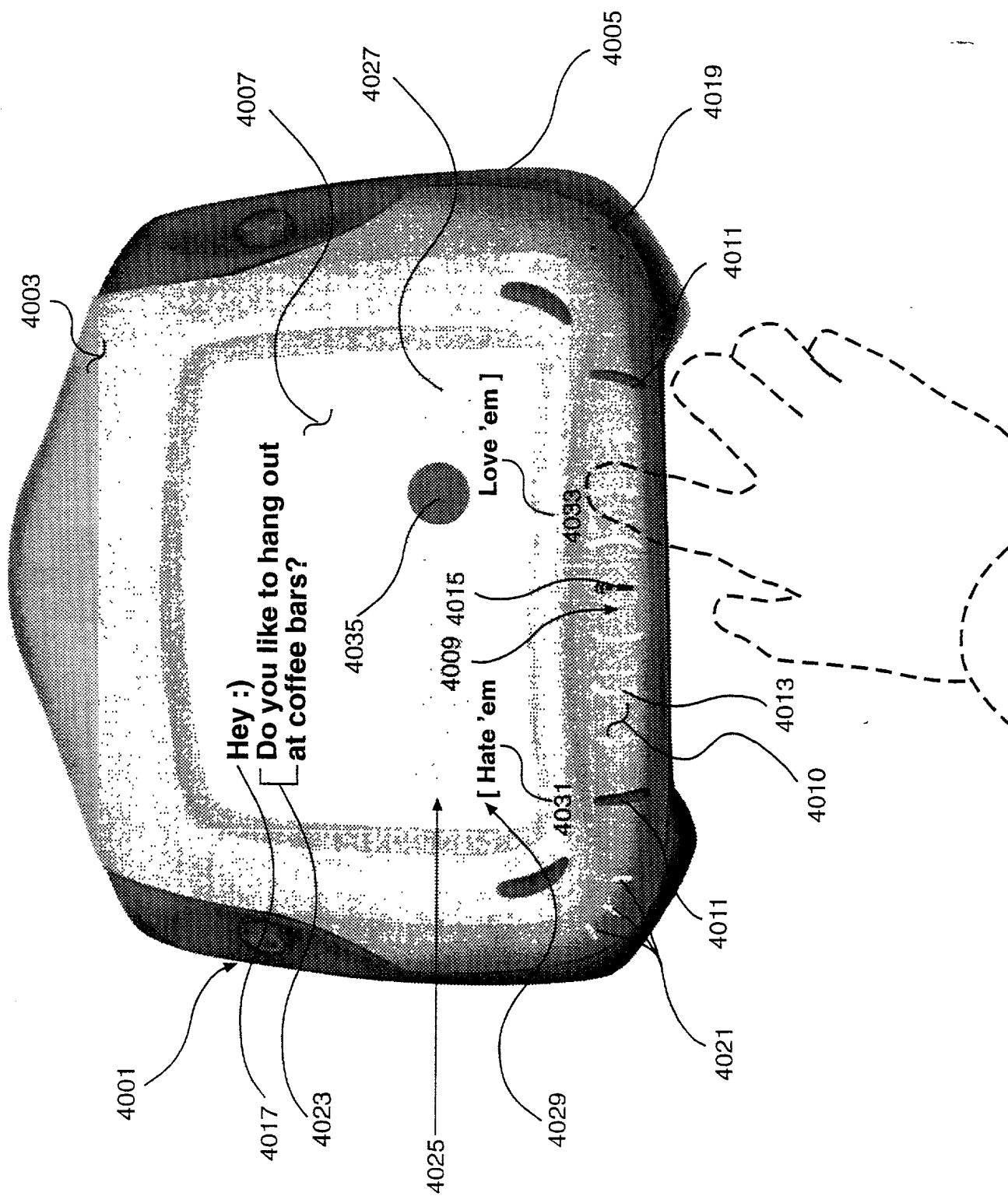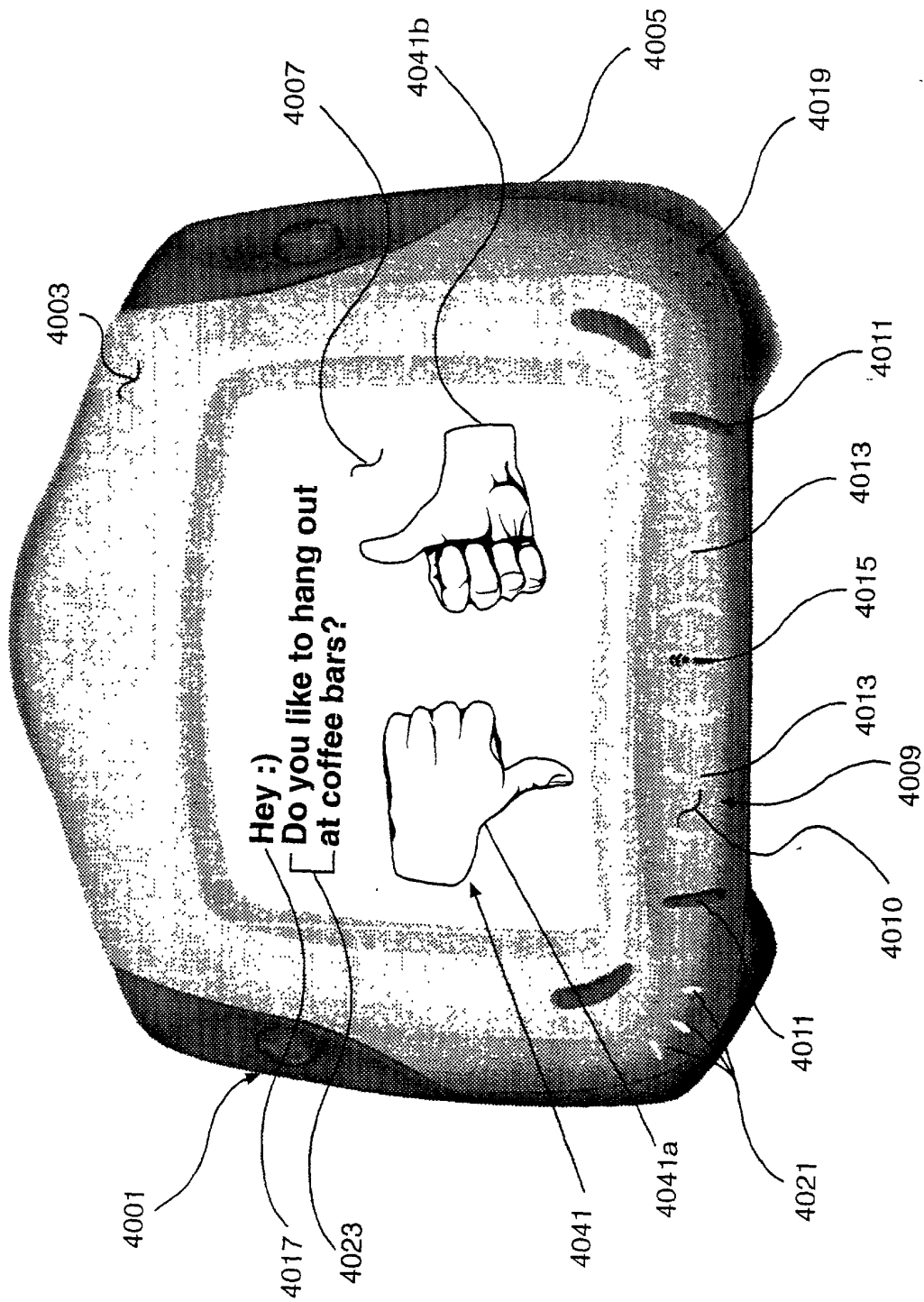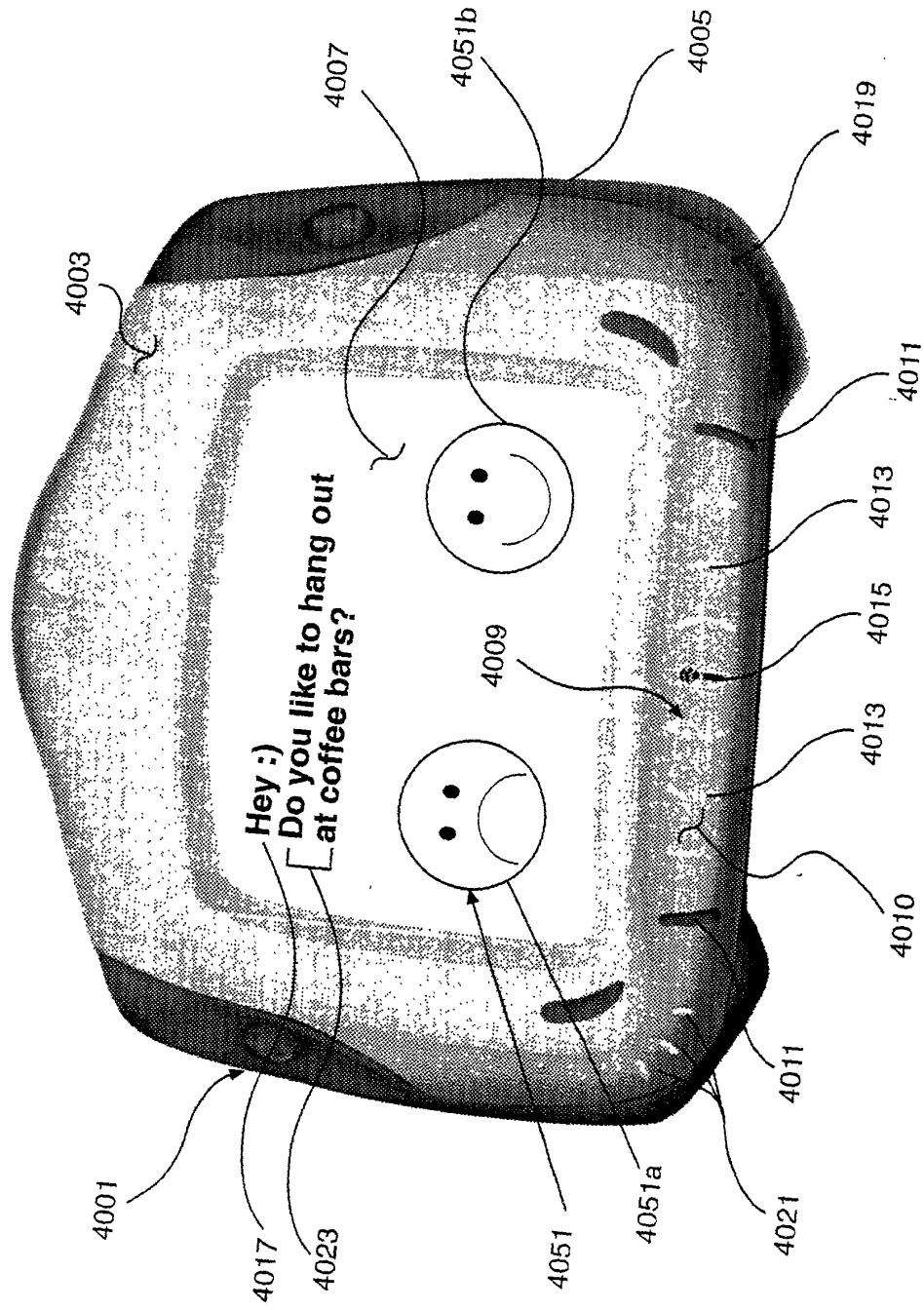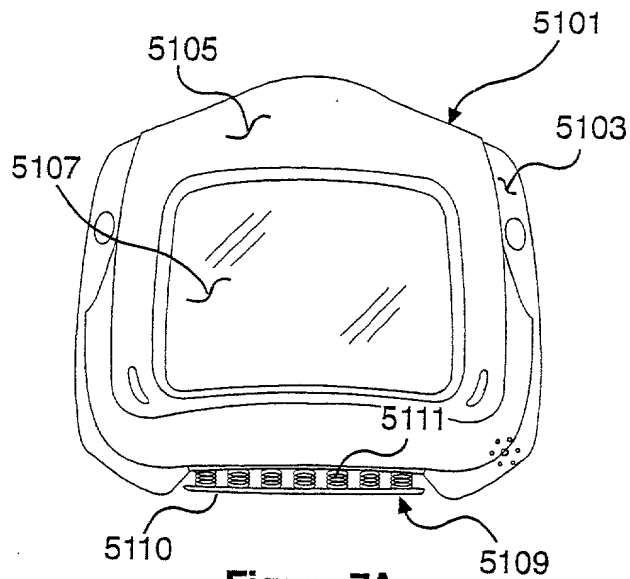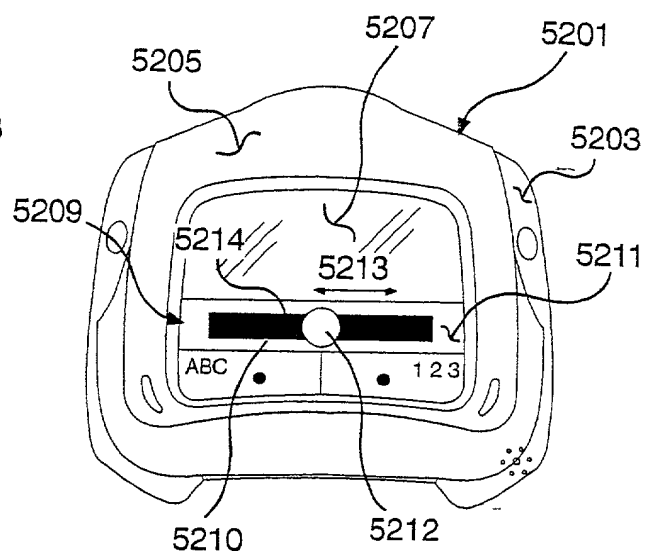
Figure 6G

Figure 7A

Figure 7B
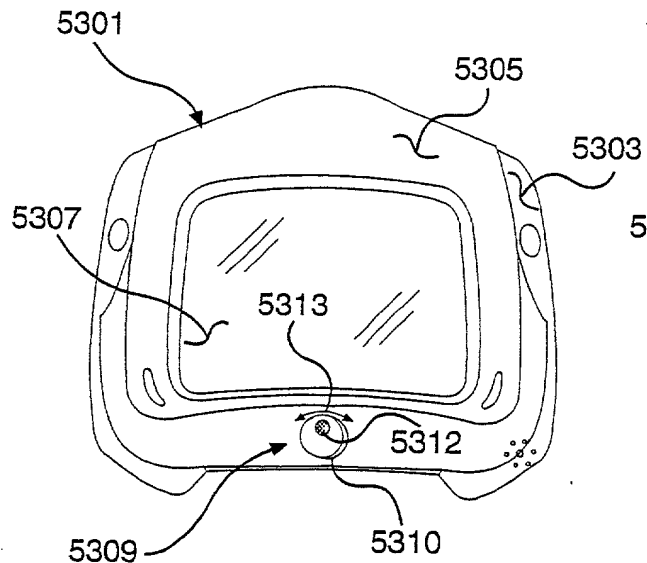
Figure 7C

Figure 7D

Figure 7E

5605   5601

5607

5113

5603   5610   5609

Figure 7F

5705   5707   5701

5709

5712

5711

ABC   1 2 3

5703

5710   5712

Figure 7G

5805   5801

5807

5812

5803   5809

5810

Figure 7H

5905   5901

5907

5913

y

x

5903

5910   5909   5913

Figure 7I

5001

5009

5005

5007

5003

5011

Figure 8A

5031

5035

5033

5041 — Ring Tone

5041 — Display Brightness

5041 — Ring Volume

5039

5037
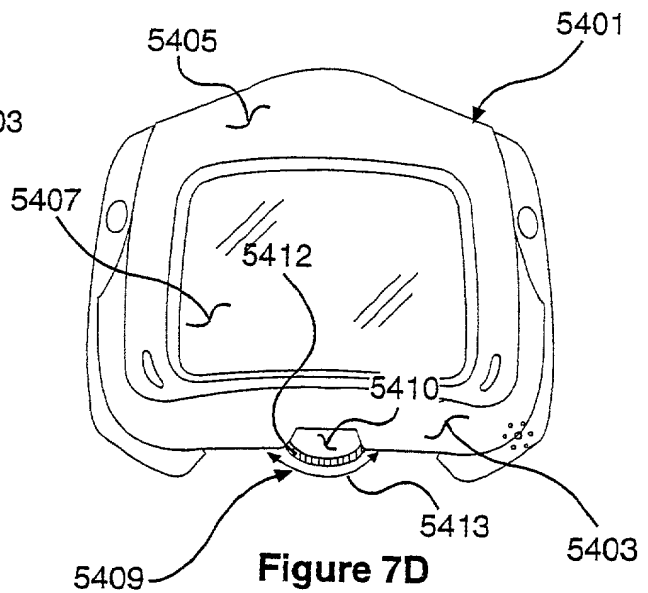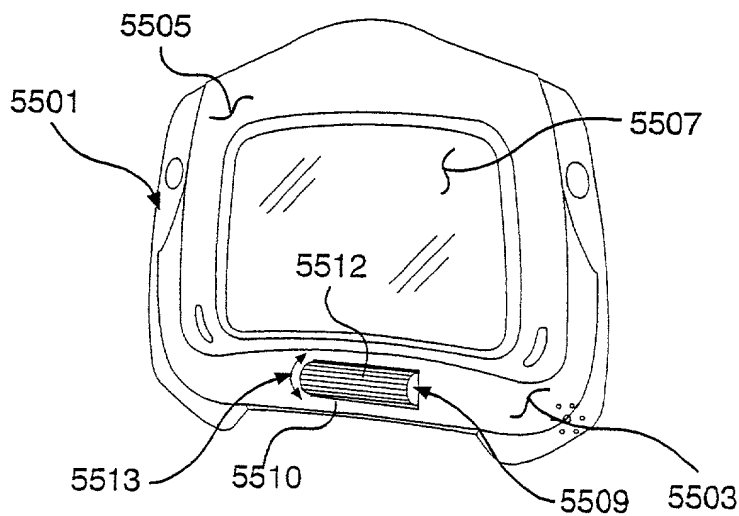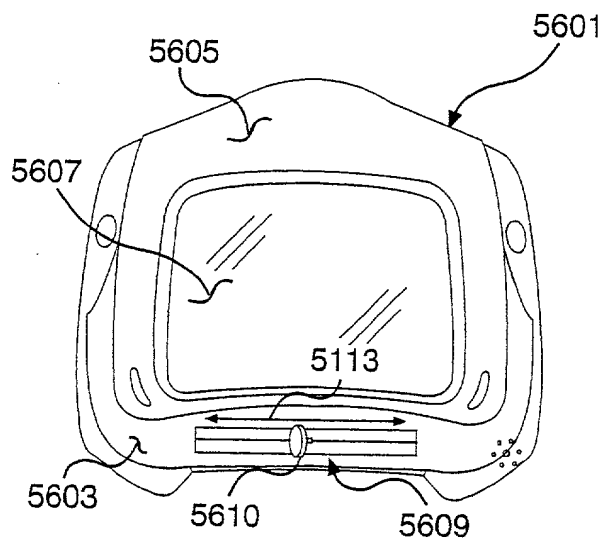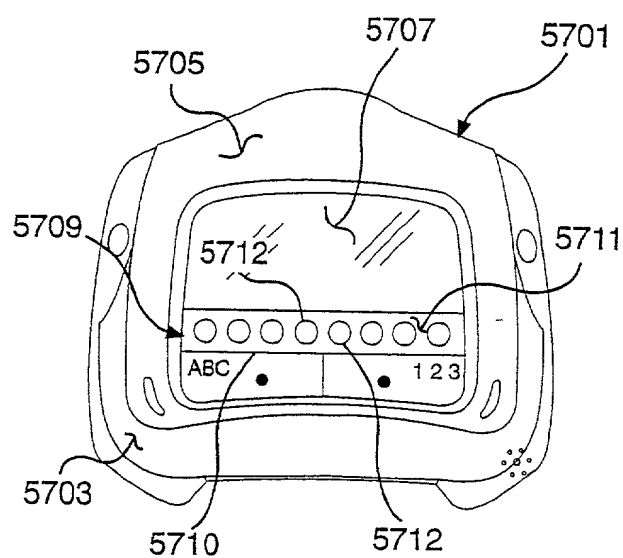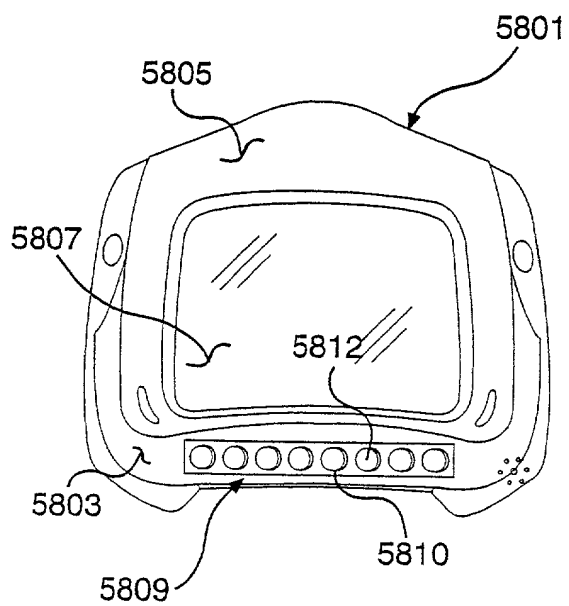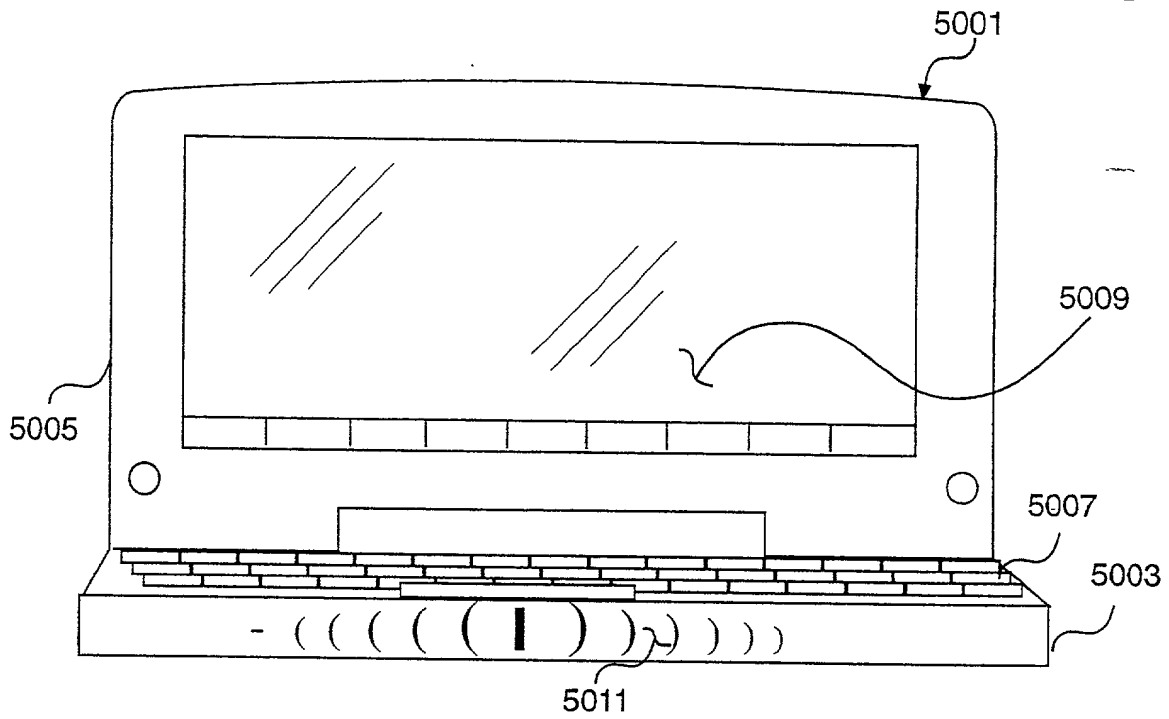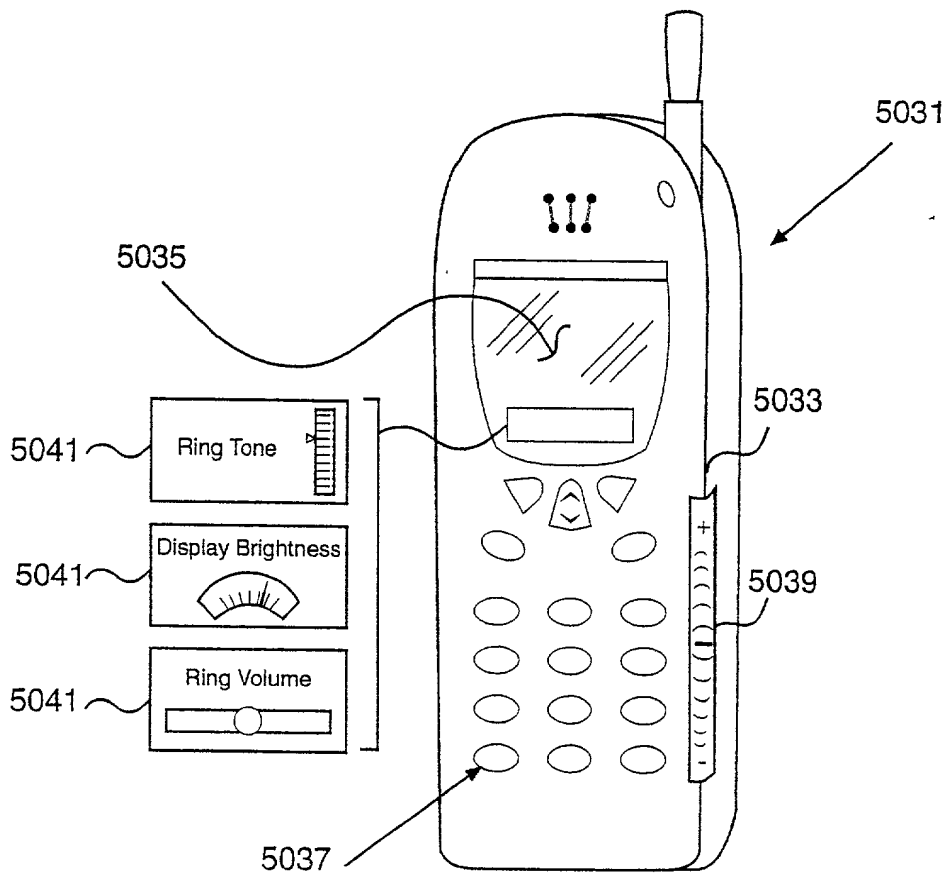
Figure 8B

Figure 8C

Figure 8D

5081
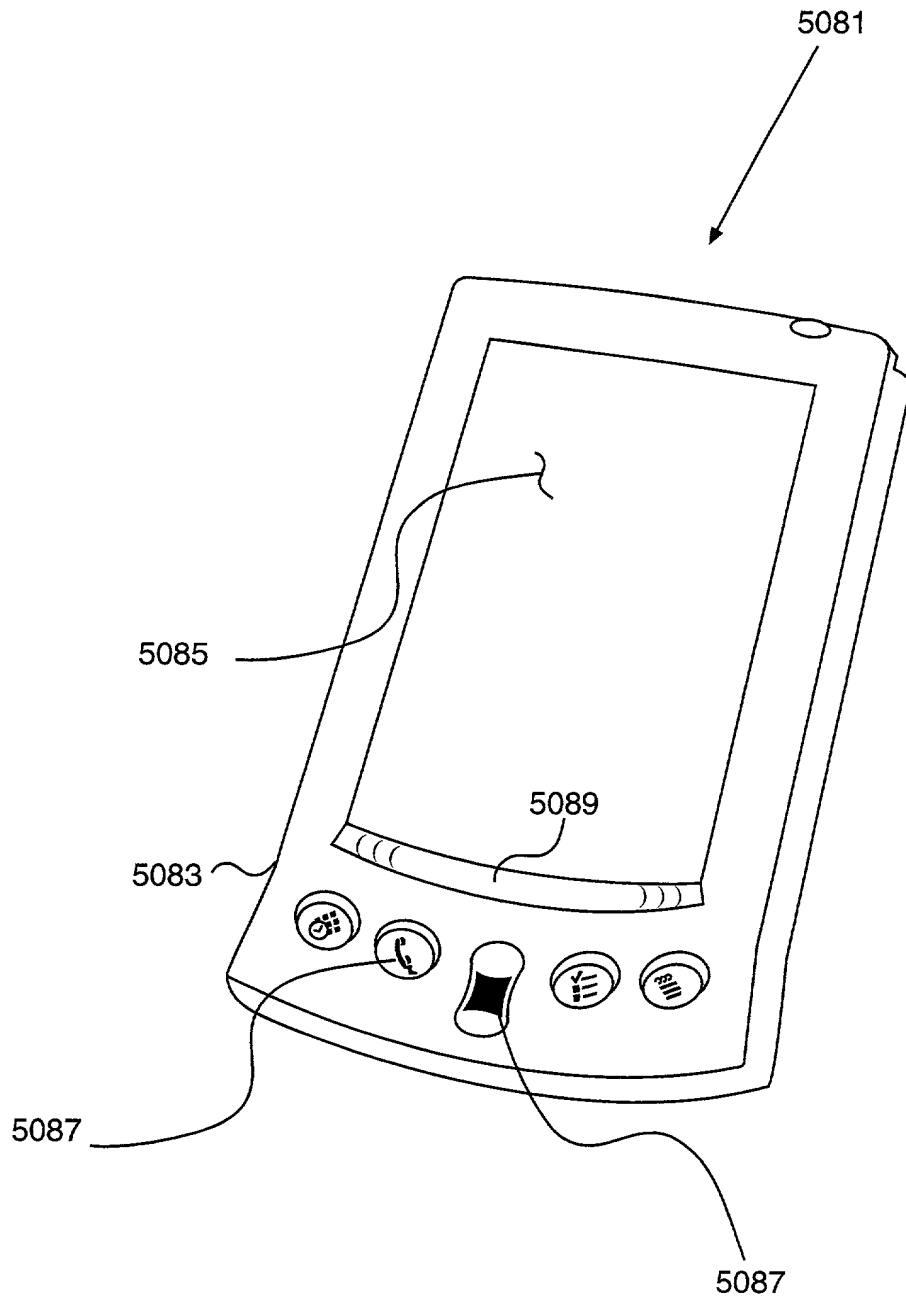
5085

5089

5083
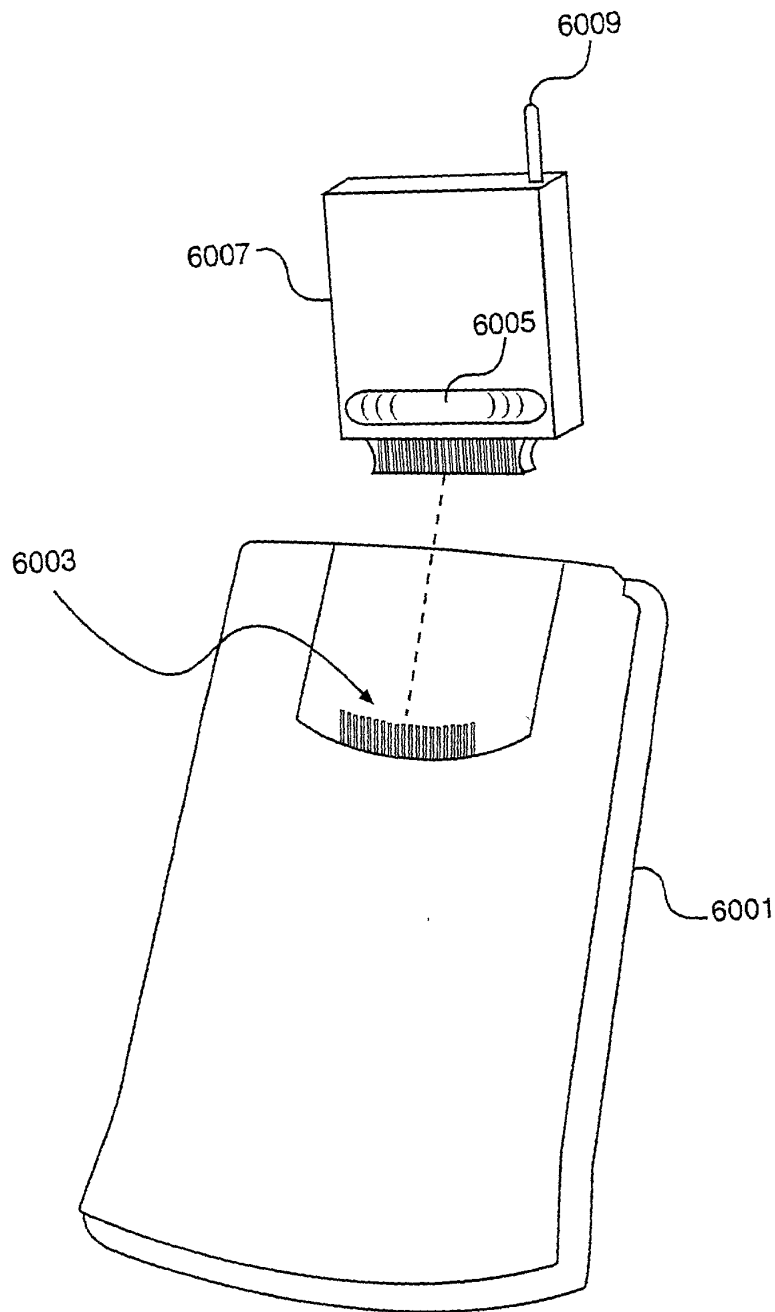
5087

5087

Figure 8E

6009

6007

6005

6003

6001
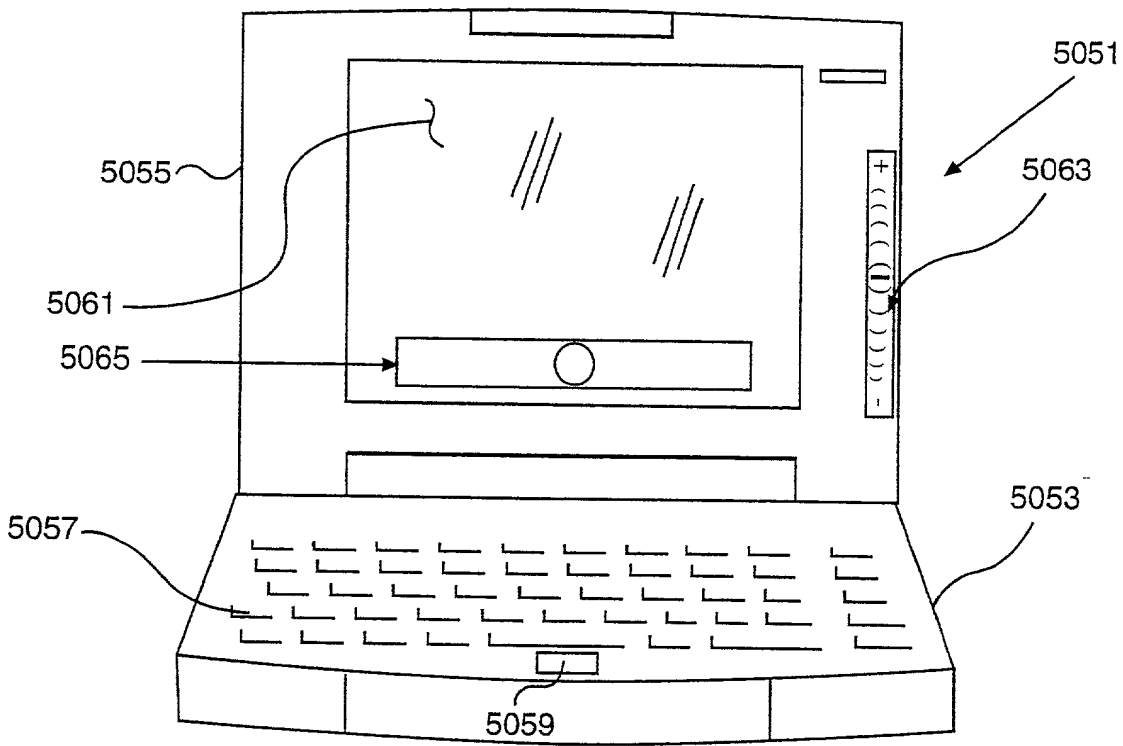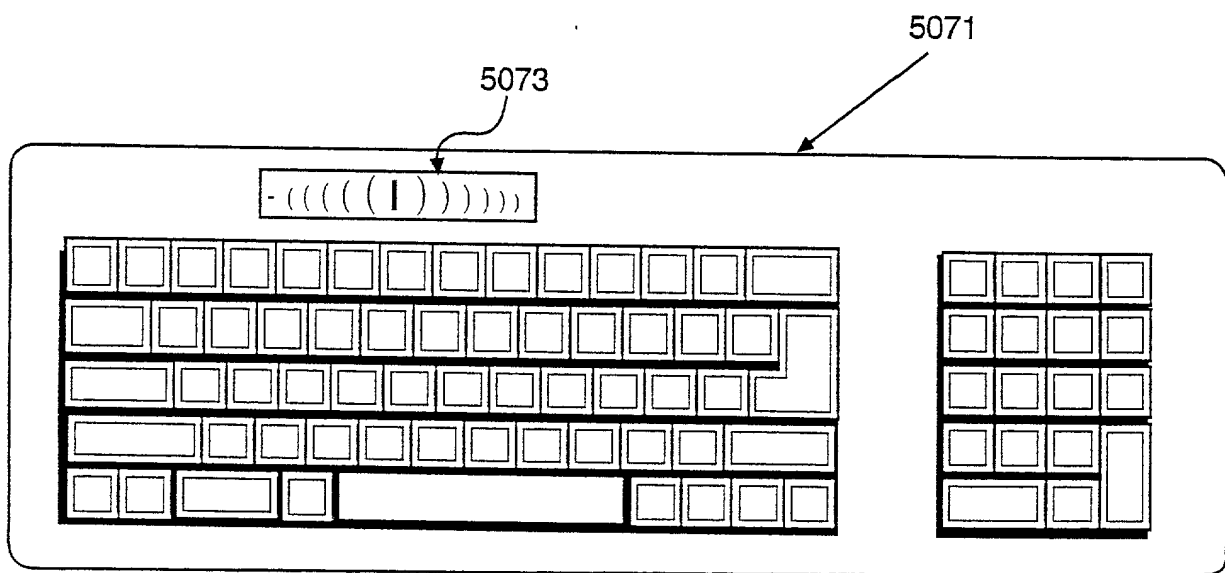
Figure 9

Age * Sex Crosstabulation

Age	Male	Female	Total
12	154	133	287
13	154	161	315
14	155	116	271
15	131	133	264
16	100	98	198
17	104	117	221
18	80	60	140
19	10	9	19
Total	888	827	1715

Fig 10A

Race * Sex Crosstabulation

Race		Male	Female	Total
White	N	783	714	1497
	%w/in race	52.30	47.70	100.00
Black	N	91	94	185
	%w/in race	49.19	50.81	100.00
Oriental	N	4	4	8
	%w/in race	50.00	50.00	100.00
American Indian	N	4		4
	%w/in race	100.00		100.00
Other	N	6	13	19
	%w/in race	31.58	68.42	100.00
Total	N	888	825	1713
	%w/in race	51.84	48.16	100.00

Fig 10B

Thumb Length

	N	Mean	Std Dev	1st	5th	50th	95th	99th
Total Males	292	6.3	0.7	5.0	5.3	6.3	7.3	8.1
Total Females	285	6.0	0.5	4.8	5.1	5.9	6.8	7.1
Males 12-15	196	6.1	0.6	5.0	5.2	6.1	7.1	7.8
Males 16-19	96	6.7	0.6	5.5	5.9	6.7	7.5	.
Females 12-15	198	5.9	0.5	4.7	5.0	5.9	6.8	7.0
Females 16-19	87	6.1	0.5	5.1	5.3	6.2	6.9	.

Fig. 10 C

Thumb Length: Males

				Percentiles				
Age	N	Mean	Std Dev	1st	5th	50th	95th	99th
12	46	5.7	0.4	4.9	5.0	5.7	6.3	.
13	46	6.0	0.5	5.1	5.2	5.9	6.9	.
14	54	6.2	0.6	5.1	5.2	6.1	7.3	.
15	50	6.6	0.4	5.5	5.9	6.6	7.3	.
16	31	6.6	0.4	5.7	5.9	6.6	7.1	.
17	38	6.8	0.7	5.5	5.8	6.8	7.9	.
18	25	6.8	0.4	6.2	6.2	6.9	7.5	.
19	2	7.6	0.8	7.0	7.0	7.6	.	.

Fig. 10D

Thumb Length: Females

				Percentiles				
Age	Valid N	Mean	Std Dev	1st	5th	50th	95th	99th
12	48	5.7	0.5	4.7	4.9	5.8	6.5	.
13	61	5.9	0.5	4.6	4.9	5.8	6.6	.
14	44	5.9	0.5	4.8	5.0	5.9	6.9	.
15	45	6.1	0.4	5.4	5.4	6.0	6.9	.
16	25	6.2	0.5	5.1	5.2	6.3	7.1	.
17	42	6.0	0.5	5.1	5.2	6.0	7.0	.
18	16	6.2	0.3	5.7	5.7	6.2	.	.
19	4	6.1	0.3	5.7	5.7	6.1	.	.

Fig. 10E

Correlations: Total

Fig. 10F

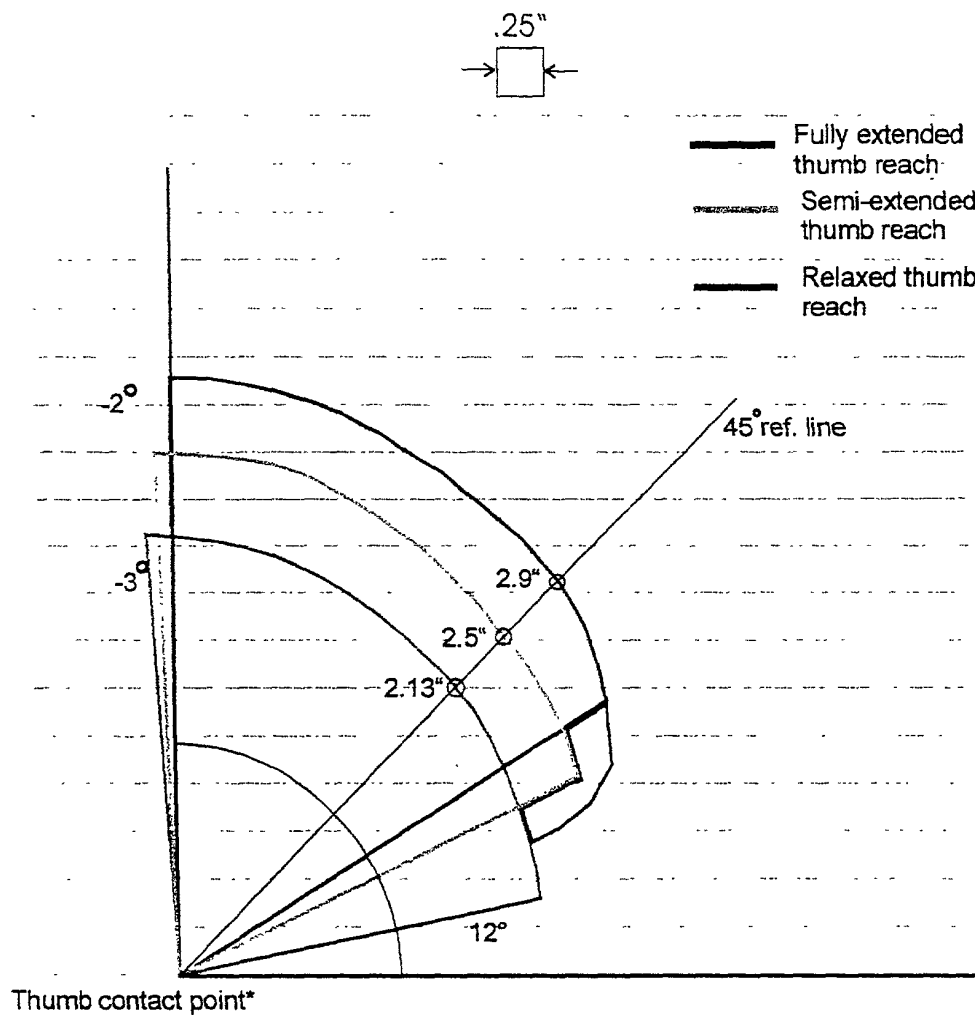|		THUMB LENGTH	HAND LENGTH
THUMB LENGTH	Pearson Correlation	1	0.770
	Sig. (2-tailed)**	.	0.000
	N	577	576
HAND LENGTH	Pearson Correlation	0.770	1
	Sig. (2-tailed)**	0.000	.
	N	576	1707
**	Correlation is significant at the 0.01 level (2-tailed)**.		

Correlations: Male

Fig. 10G

		THUMB LENGTH	HAND LENGTH
THUMB LENGTH	Pearson Correlation	1	0.790
	Sig. (2-tailed)**	.	0.000
	N	292	291
HAND LENGTH	Pearson Correlation	0.790	1
	Sig. (2-tailed)**	0.000	.
	N	291	882
**	Correlation is significant at the 0.01 level (2-tailed)**.		

Correlations: Female

		THUMB LENGTH	HAND LENGTH
THUMB LENGTH	Pearson Correlation	1	0.657
	Sig. (2-tailed)**	.	0.000
	N	285	285
HAND LENGTH	Pearson Correlation	0.657	1
	Sig. (2-tailed)**	0.000	.
	N	285	825
**	Correlation is significant at the 0.01 level (2-tailed)**.		

Fig. 10H

.25"

Fully extended
thumb reach

Semi-extended
thumb reach

Relaxed thumb
reach

-2°

45° ref. line

-3°

2.9"

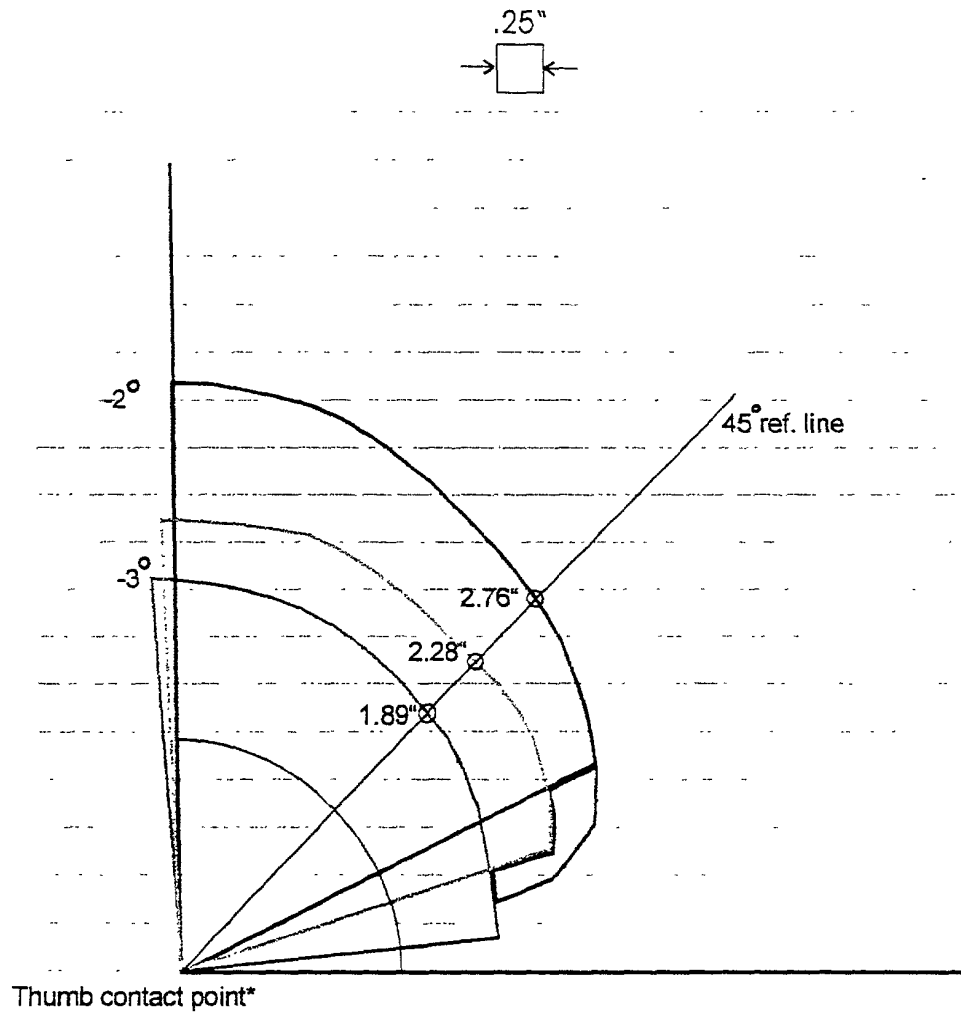2.5"

2.13"

12°

Thumb contact point*

1st Percentile Left Thumb Sweeps, Females Age 12-19
(Uniform object thickness 0.75", **corner radius 1.5"**)
Note: each data point represents thumb tip at centerline of thumb

* Located vertically over point of thumb base contact with corner,
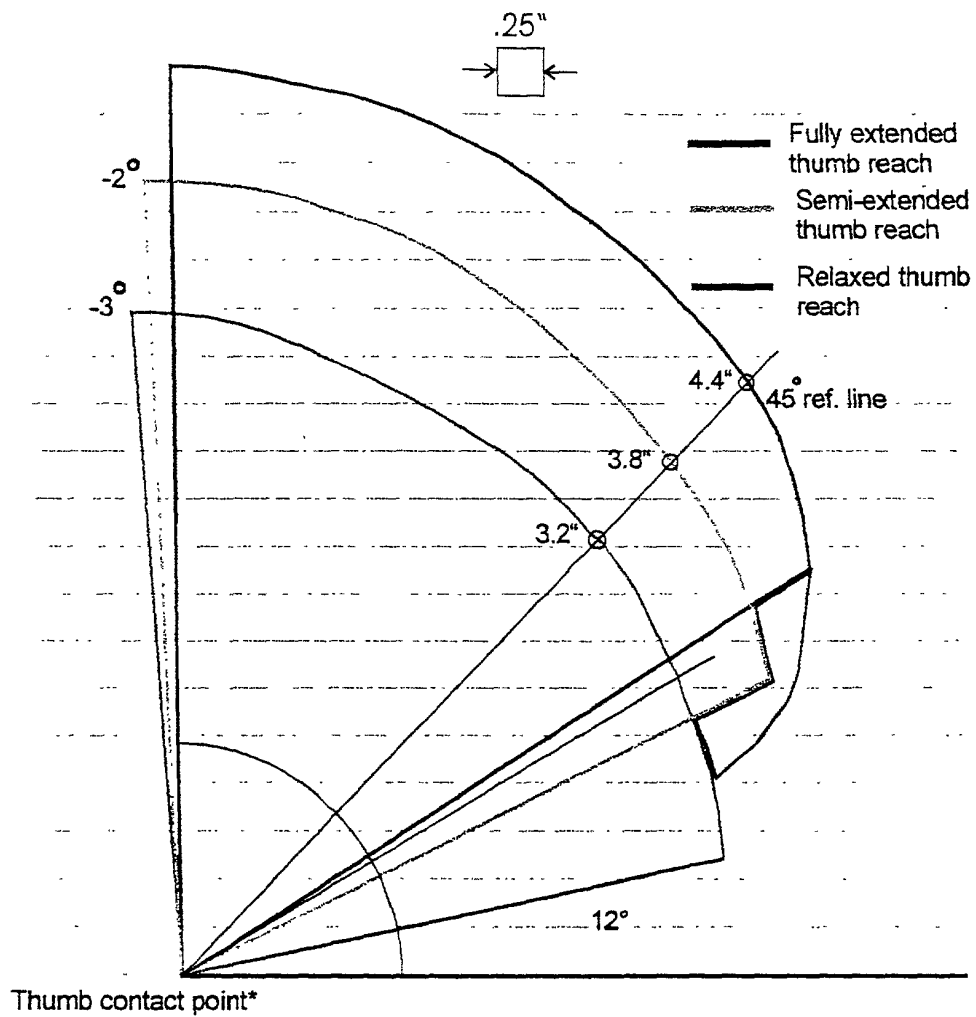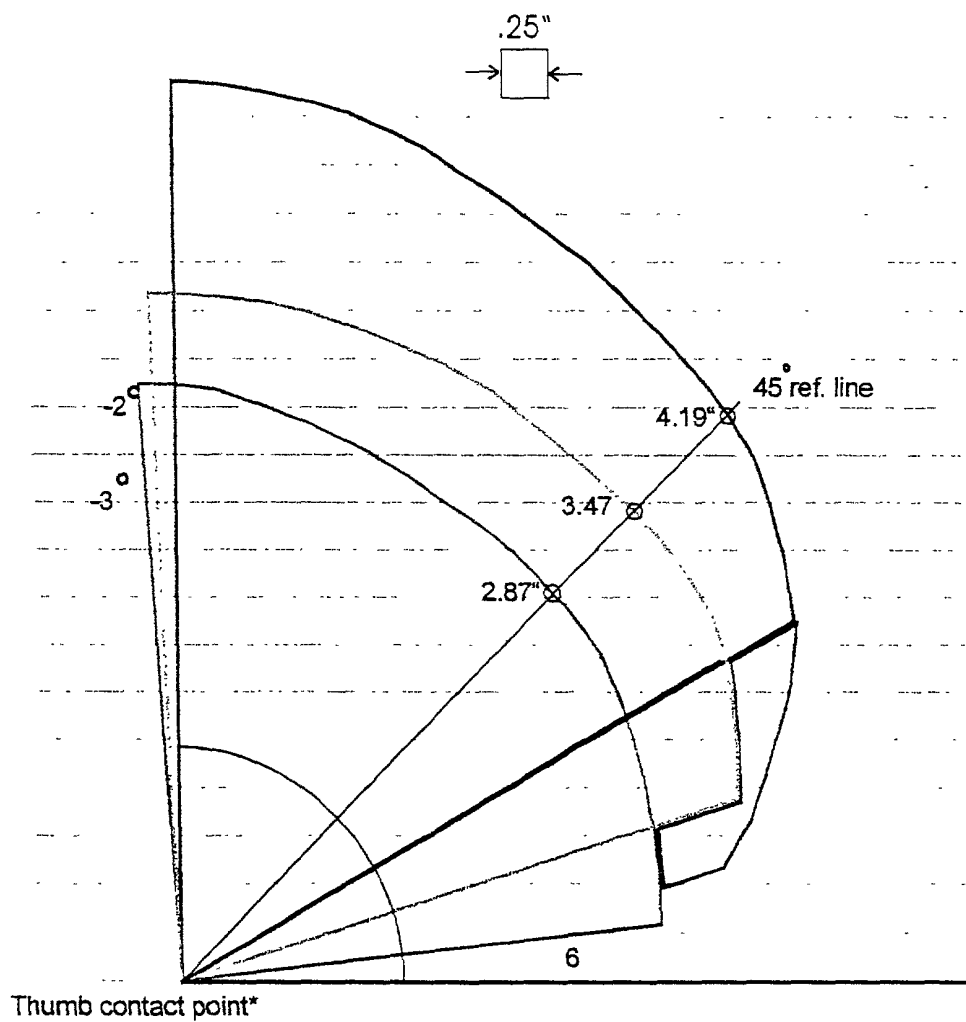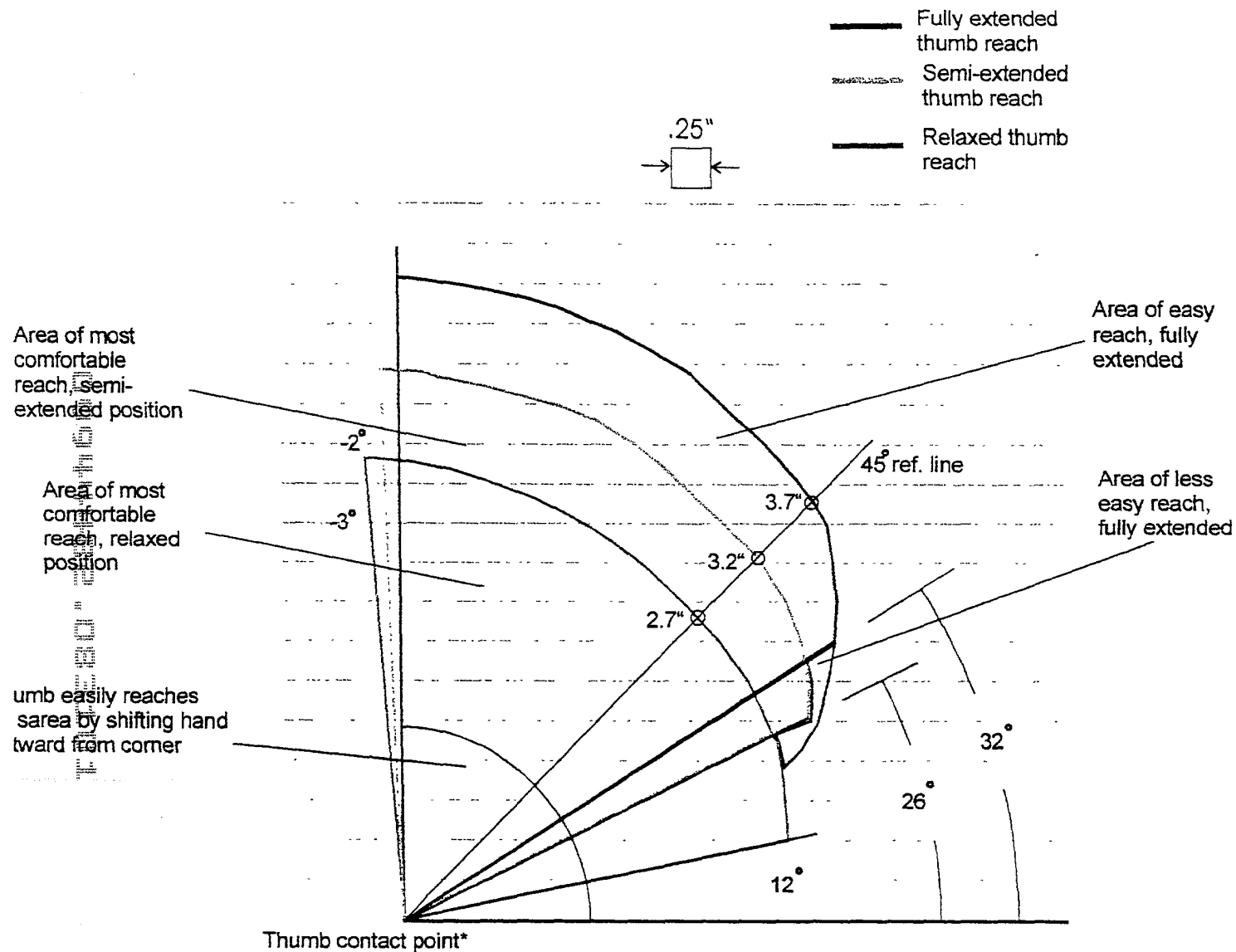at midpoint of lower corner radius on device

Fig 10 I

C23

.25"

-2°

45° ref. line

-3°

2.76"

2.28"

1.89"

Thumb contact point*

1st Percentile Left Thumb Sweeps, Females Age 12-19
(Uniform object thickness 0.75", corner radius 0.75")

* Located vertically over point of thumb base contact with corner,
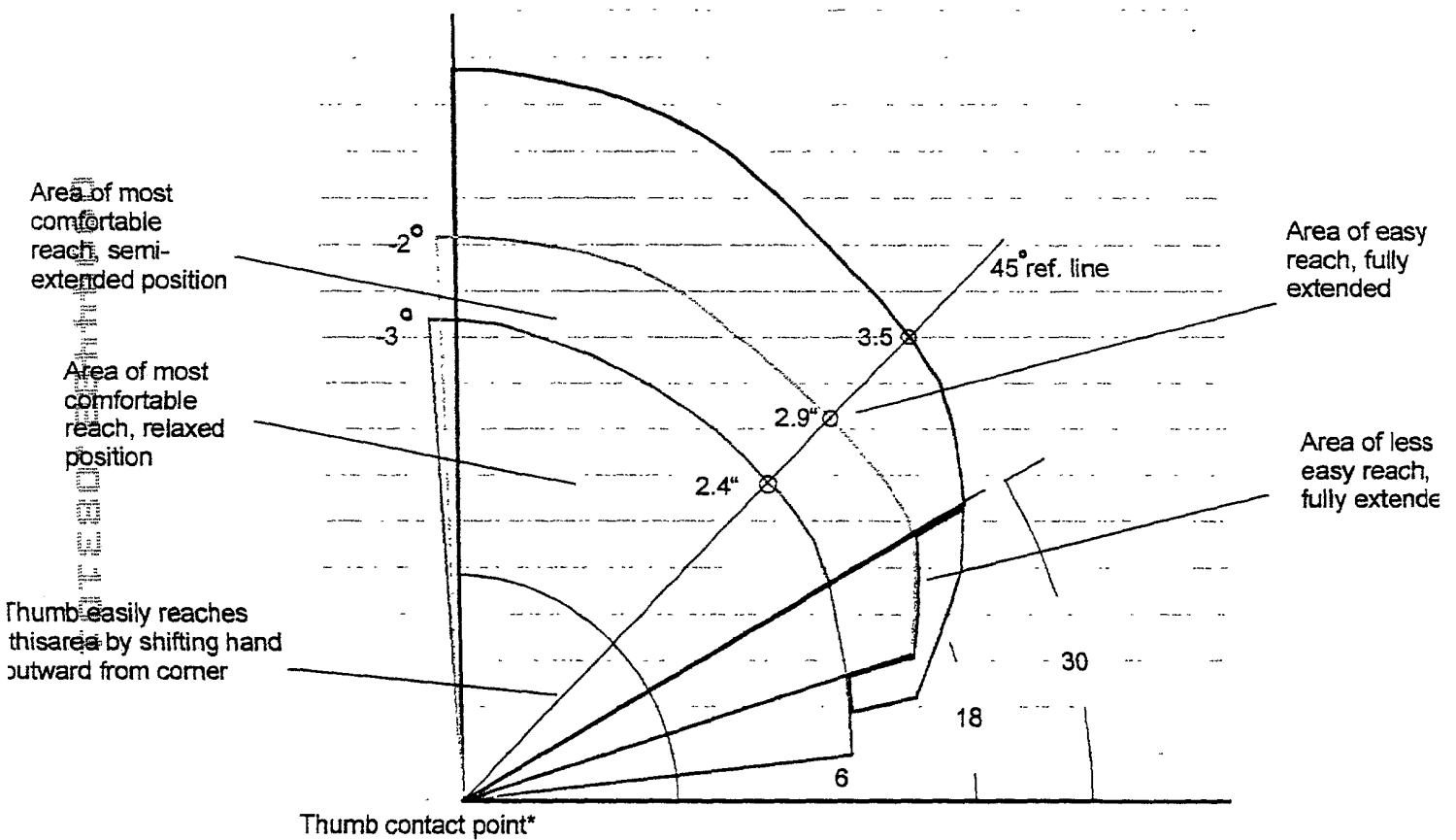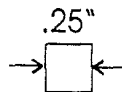at midpoint of lower corner radius on device

Fig. 10 J

C24

.25"

Fully extended
thumb reach

Semi-extended
thumb reach

Relaxed thumb
reach

-2°

-3°

4.4" ⊗
45° ref. line

3.8" ⊗

3.2" ⊗

12°

Thumb contact point*

95th Percentile Left Thumb Sweeps, Male Age 12-19
(Uniform object thickness 0.75", **corner radius 1.5"**)
Note: each data point represents thumb tip at centerline of thumb

* Located vertically over point of thumb base contact with corner,
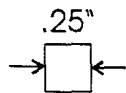 at midpoint of lower corner radius on device

Fig 10K

C25

.25"

45° ref. line

4.19"⊗

3.47"⊗

2.87"⊗

-2°

-3°

6

Thumb contact point*

95th Percentile Left Thumb Sweeps, Male Age 12-19
(Uniform object thickness 0.75", corner radius 0.75")

* Located vertically over point of thumb base contact with corner,
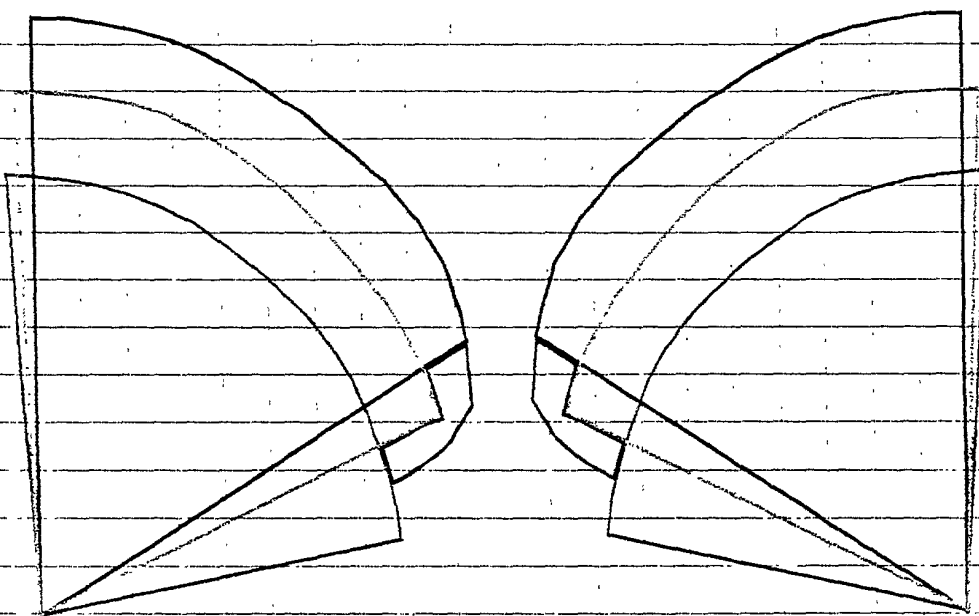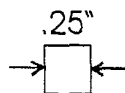 at midpoint of lower corner radius on device

Fig 10L

C26

Fully extended thumb reach

Semi-extended thumb reach

Relaxed thumb reach

.25"

Area of easy reach, fully extended

Area of most comfortable reach, semi-extended position

Area of most comfortable reach, relaxed position

-2°

-3°

45° ref. line

3.7"

3.2"

2.7"

Area of less easy reach, fully extended

umb easily reaches sarea by shifting hand tward from corner

32°

26°

12°

Thumb contact point*
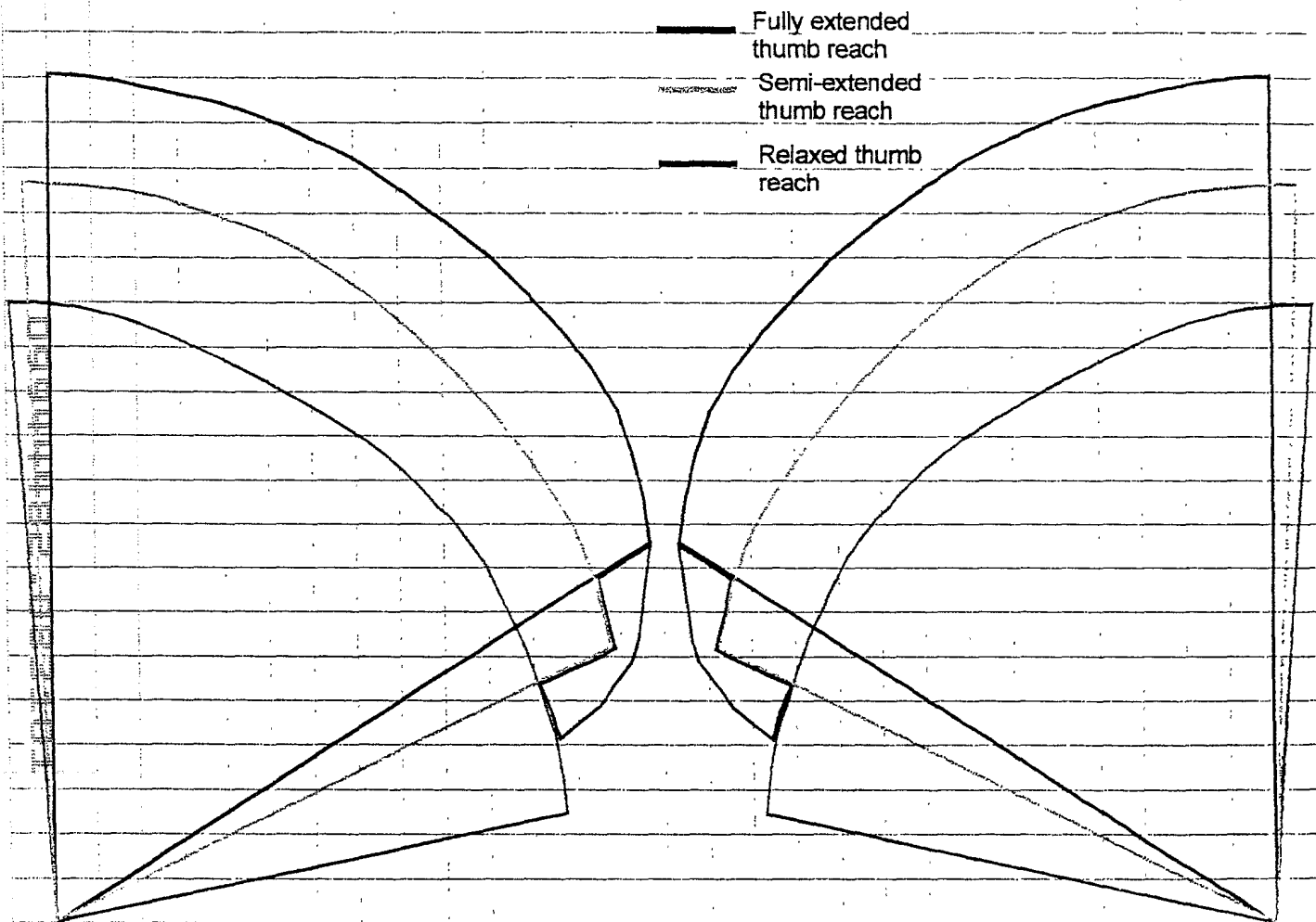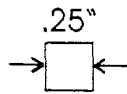
50th Percentile Left Thumb Sweeps, M+F Age 12-19
(Uniform object thickness 0.75", corner radius 1.5")

Note: Each data point represents thumb tip at centerline of thumb

* Located vertically over point of thumb base contact with corner,
at midpoint of lower corner radius on device

Fig. 10M

C27

.25"

Area of most
comfortable
reach, semi-
extended position

Area of most
comfortable
reach, relaxed
position

Thumb easily reaches
this area by shifting hand
outward from corner

−2°

−3°

45° ref. line

Area of easy
reach, fully
extended

3.5

2.9"

2.4"

Area of less
easy reach,
fully extende

30

18

6

Thumb contact point*

50th Percentile Left Thumb Sweeps, M+F Age 12-19
(Uniform object thickness 0.75", corner radius 0.75")

* Located vertically over point of thumb base contact with corner,
  at midpoint of lower corner radius on device

Fig 10N

C28

.25"

Fully extended thumb reach
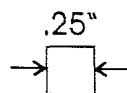
Semi-extended thumb reach

Relaxed thumb reach

1st Percentile Combined Thumb Sweeps, Females Age 12-19
(Uniform object thickness 0.75", **corner radius 1.5"**)
Note: each data point represents thumb tip at centerline of thumb

* Located vertically over point of thumb base contact with corner,
at midpoint of lower corner radius on device

Fig 100

C29

.25"

— Fully extended thumb reach

— Semi-extended thumb reach

— Relaxed thumb reach

50th Percentile Combined Thumb Sweeps, Male+Females Age 12-19
(Uniform object thickness 0.75", **corner radius 1.5"**)

Notes: Each data point represents thumb tip at centerline of thumb
Left and right thumb envelopes are arbitrarily placed relative to each other
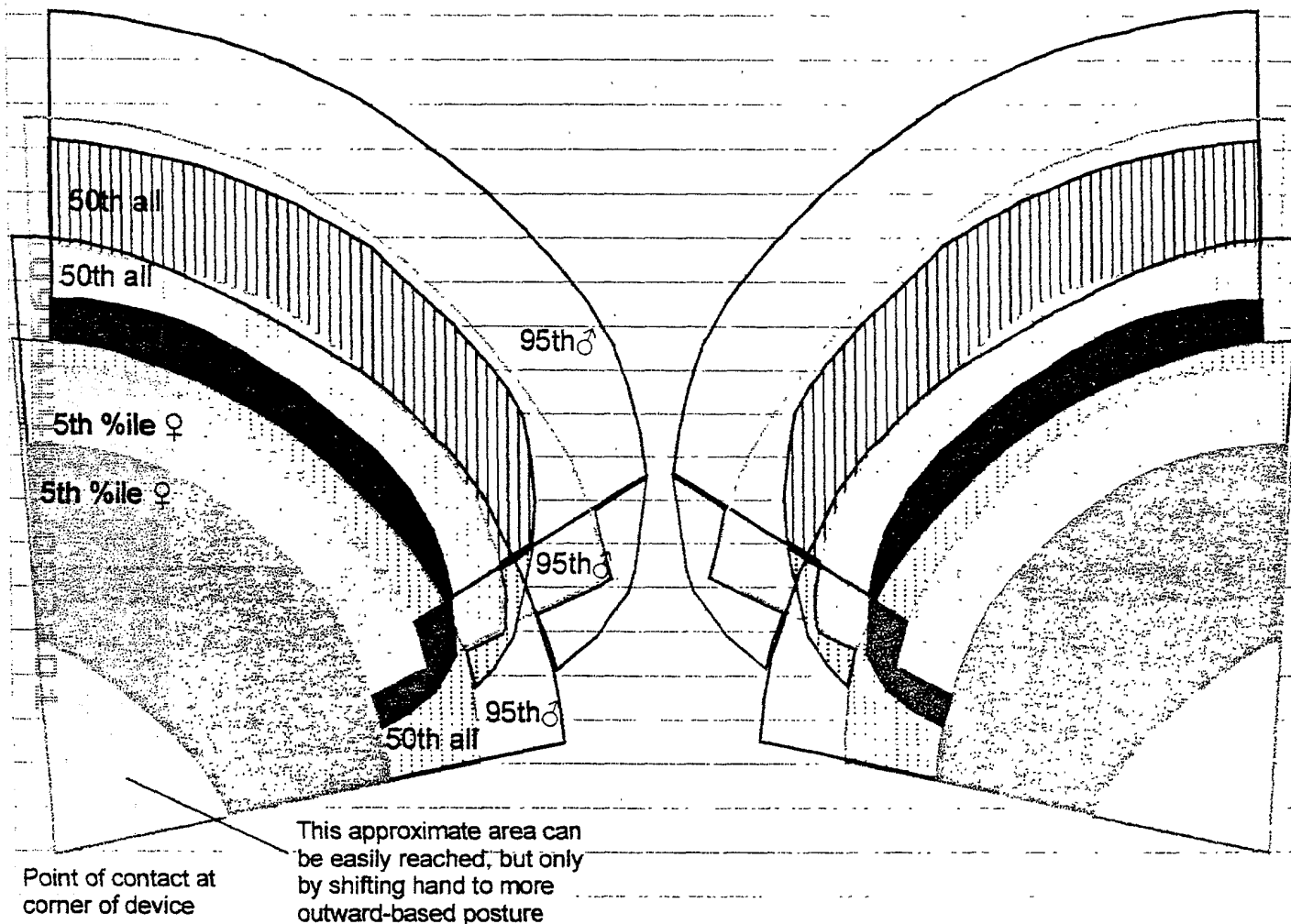to permit cutting or measurements without overlapped reach lines

* Located vertically over point of thumb base contact with corner,
at midpoint of lower corner radius on device

Fig. 10 P

C 30

.25"

Fully extended thumb reach

Semi-extended thumb reach

Relaxed thumb reach

95th Percentile Combined Thumb Sweeps, Males Age 12-19
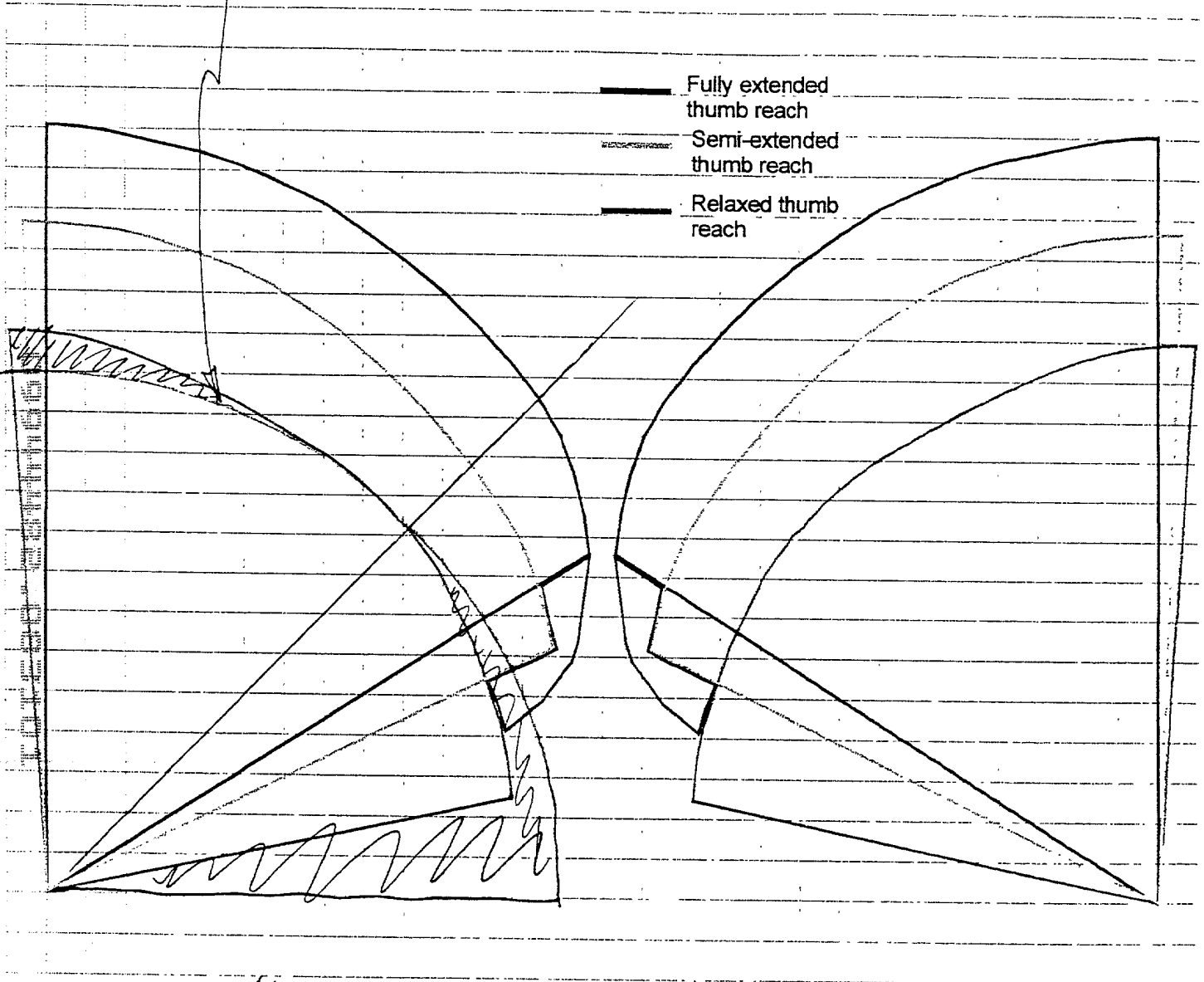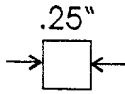(Uniform object thickness 0.75", **corner radius 1.5"**)

Notes: Each data point represents thumb tip at centerline of thumb
Left and right thumb envelopes are arbitrarily placed relative to each other
to permit cutting or measurements without overlapped reach lines

* Located vertically over point of thumb base contact with corner,
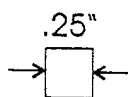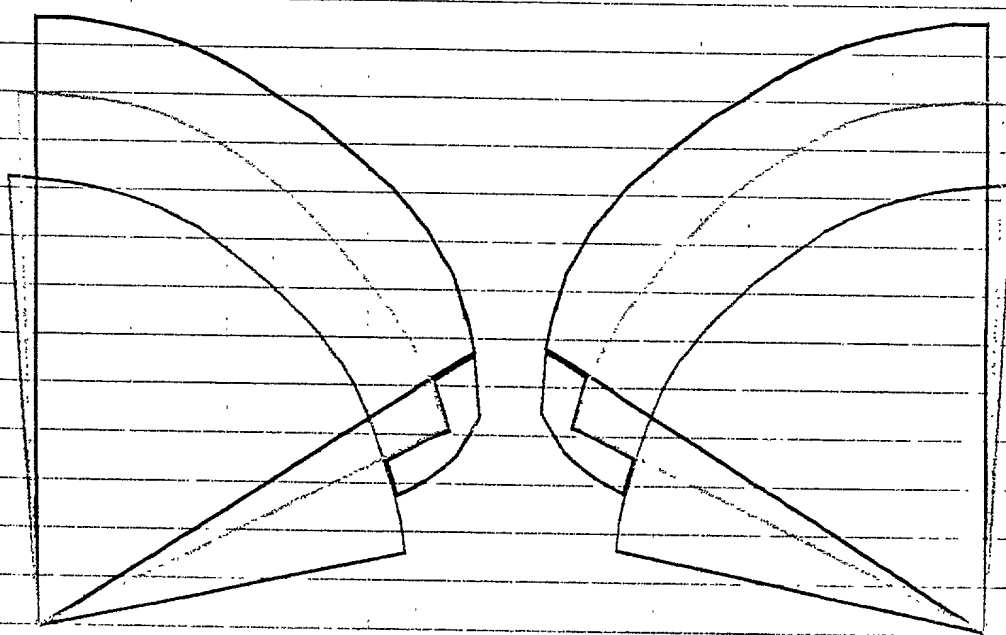at midpoint of lower corner radius on device

Fig 10Q

C31

Fully extended thumb reach

Semi-extended thumb reach

Relaxed thumb reach

Area reached with some difficulty while fully extended

.25"

50th all

50th all

95th♂

5th %ile ♀

5th %ile ♀

95th♂

95th♂

50th all

This approximate area can be easily reached, but only by shifting hand to more outward-based posture

Point of contact at corner of device

Combined Thumb Sweeps, 1st Percentile Females Through 95th Percentile Males Age 12-19

(Uniform object thickness 0.75", **corner radius 1.5"**)

Notes: Each data point represents thumb tip at centerline of thumb
Left and right thumb envelopes are arbitrarily placed relative to each other
to permit cutting or measurements without overlapped reach lines

Located vertically over point of thumb base contact with corner, at midpoint of lower corner radius on device

Fig 10R

C32

What would happen with circular arcs.

.25"

— Fully extended thumb reach

— Semi-extended thumb reach

— Relaxed thumb reach

1st Percentile Combined Thumb Sweeps, Females Age 12-19
(Uniform object thickness 0.75", **corner radius 1.5"**)
Note: each data point represents thumb tip at centerline of thumb

* Located vertically over point of thumb base contact with corner,
at midpoint of lower corner radius on device
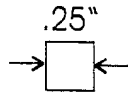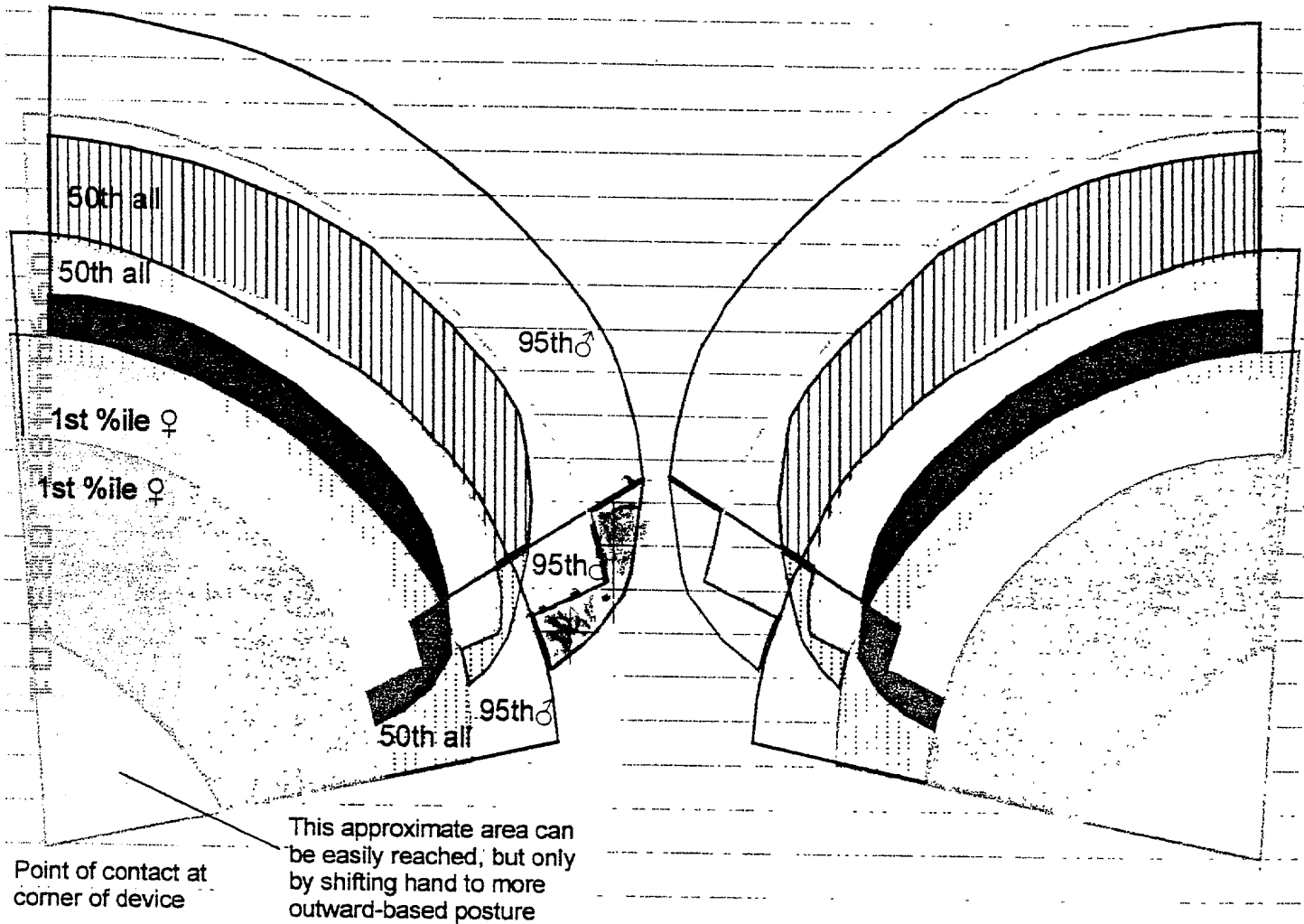
Fig 10 S

C 33

.25"

Fully extended
thumb reach

Semi-extended
thumb reach

Relaxed thumb
reach

1st Percentile Combined Thumb Sweeps, Females Age 12-19
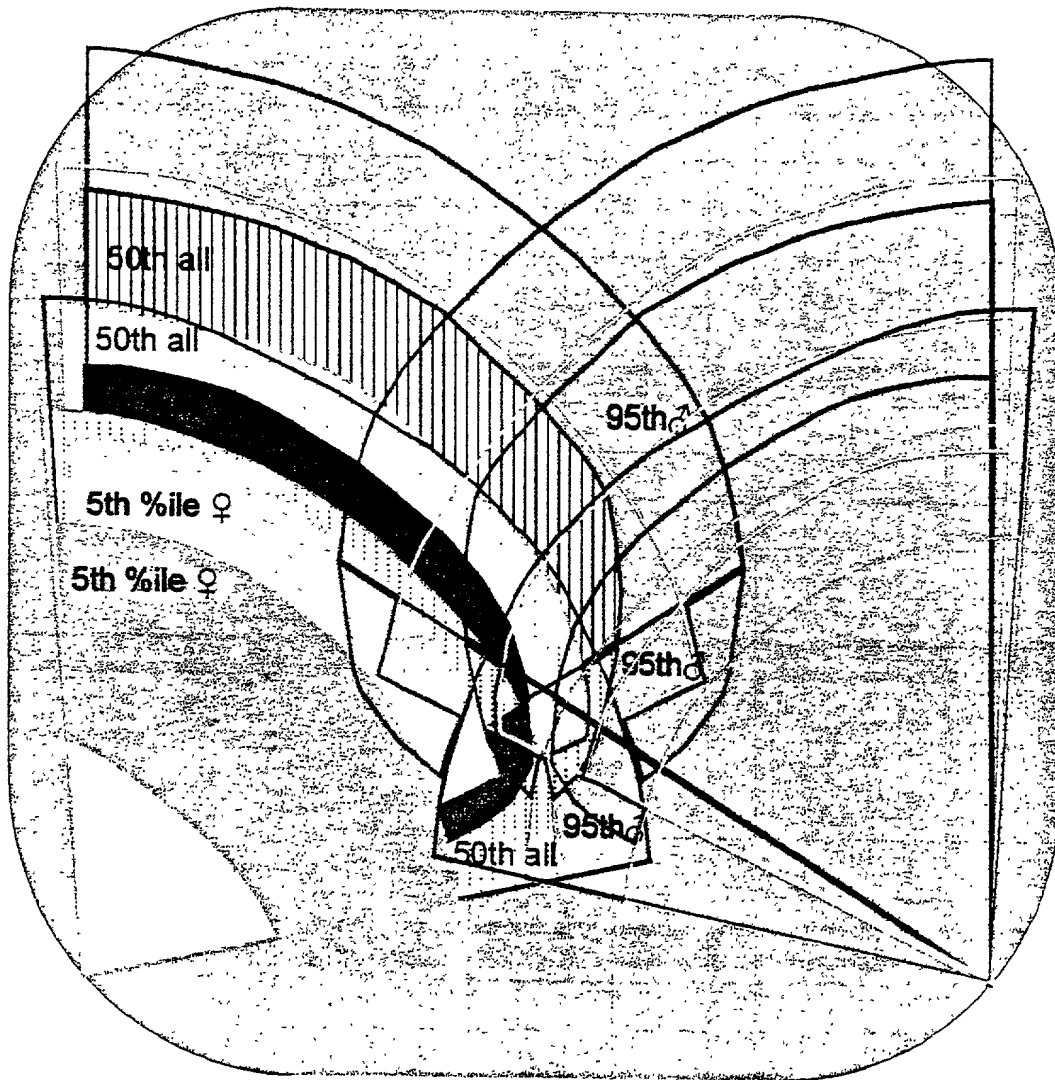(Uniform object thickness 0.75", **corner radius 1.5"**)

Notes: Each data point represents thumb tip at centerline of thumb
Left and right thumb envelopes are arbitrarily placed relative to each other
to permit cutting or measurements without overlapped reach lines

Fig. 10 T

Fully extended thumb reach

Semi-extended thumb reach

Relaxed thumb reach

Area reached with some difficulty while fully extended

.25"

50th all

50th all

95th♂

1st %ile ♀

1st %ile ♀

95th♂

95th♂

50th all

Point of contact at corner of device

This approximate area can be easily reached, but only by shifting hand to more outward-based posture

Combined Thumb Sweeps, 1st Percentile Females Through 95th Percentile Males Age 12-19

(Uniform object thickness 0.75", **corner radius 1.5")**

Notes: Each data point represents thumb tip at centerline of thumb
Left and right thumb envelopes are arbitrarily placed relative to each other
to permit cutting or measurements without overlapped reach lines

Fig 10U

Located vertically over point of thumb base contact with corner,
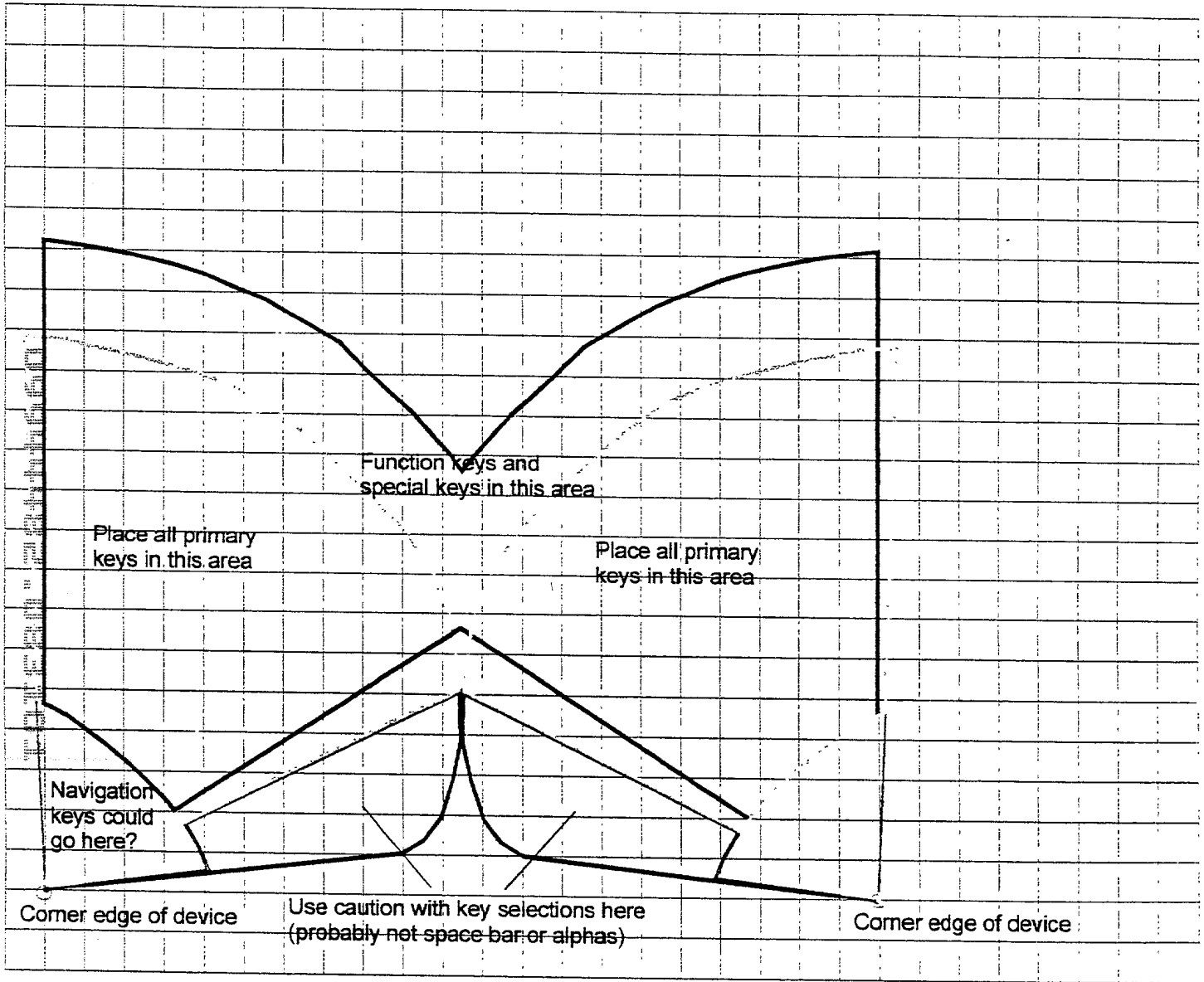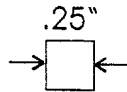at midpoint of lower corner radius on device

C35

Thumb sweeps on 1.5 corner template, 5.5"
(50th percentile relaxed reaches overlap 0.15 in.)

Fig 10V

.25"

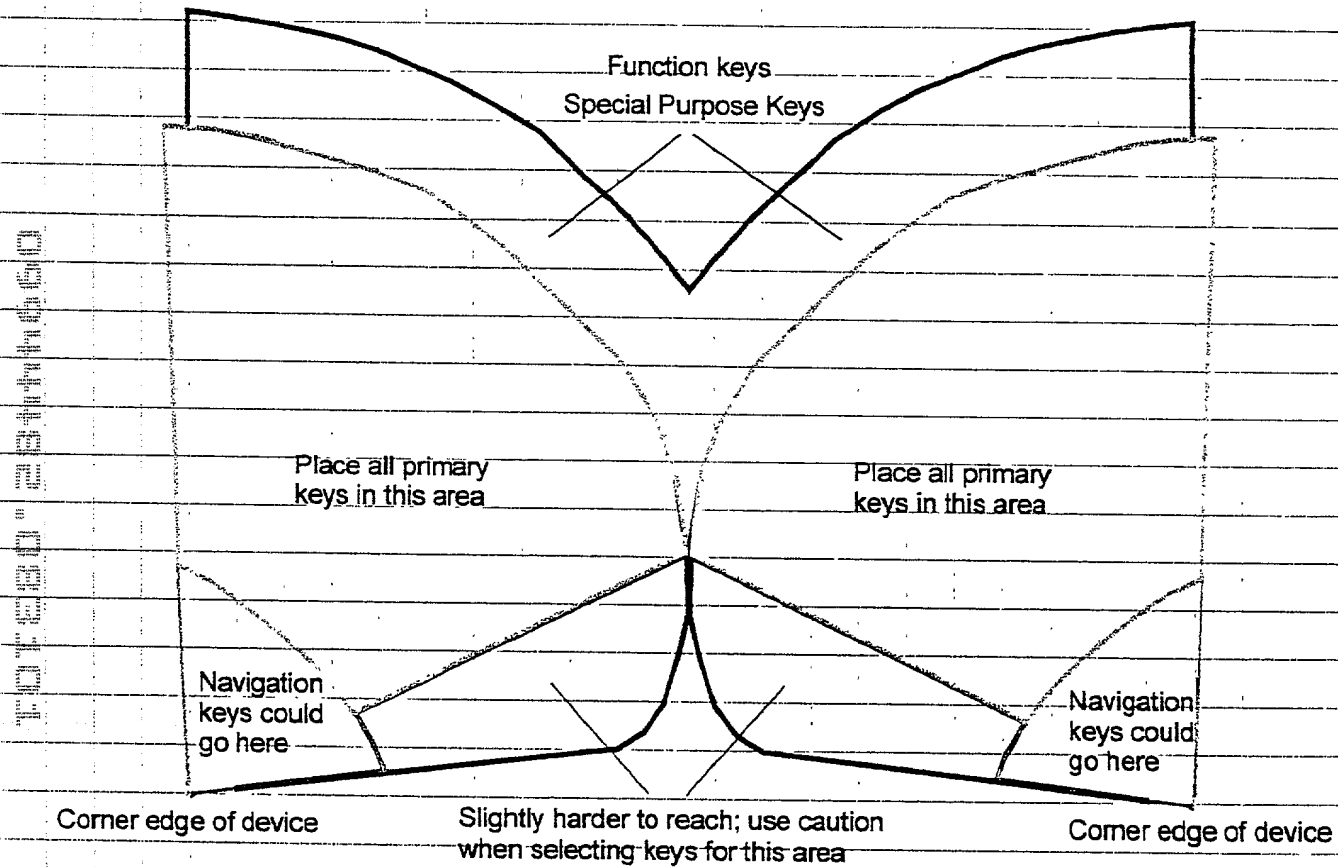Function keys and
special keys in this area

Place all primary
keys in this area

Place all primary
keys in this area

Navigation
keys could
go here?

Corner edge of device

Use caution with key selections here
(probably not space bar or alphas)

Corner edge of device

Key Placement Guidelines

(Uniform object thickness 0.75", **corner radius 1.5"**)

Using 50th percentile semi-extended reach for primary keying area

Fig 10W

C37

.25"

Function keys
Special Purpose Keys

Place all primary
keys in this area

Place all primary
keys in this area

Navigation
keys could
go here

Navigation
keys could
go here

Corner edge of device

Slightly harder to reach; use caution
when selecting keys for this area

Corner edge of device
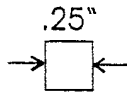
Key Placement Guidelines

Device thickness 0.75"(uniform), corner radius 1.5" (plan view), corner radius approx. 1.0" (side view)

Notes:
For device thickness of 0.75 in., keying area width is approx. 5.5 in.
Reach areas are valid for placement of thumbs at corner or along sides
Smaller corner radii decrease reach areas but permit easier reach into blue areas
Device thicknesses greater than 0.75 in. quickly decrease size of reach areas
Reach plots generally indicate a device width of approx. 6.0 in.

Fig 10 X

C38
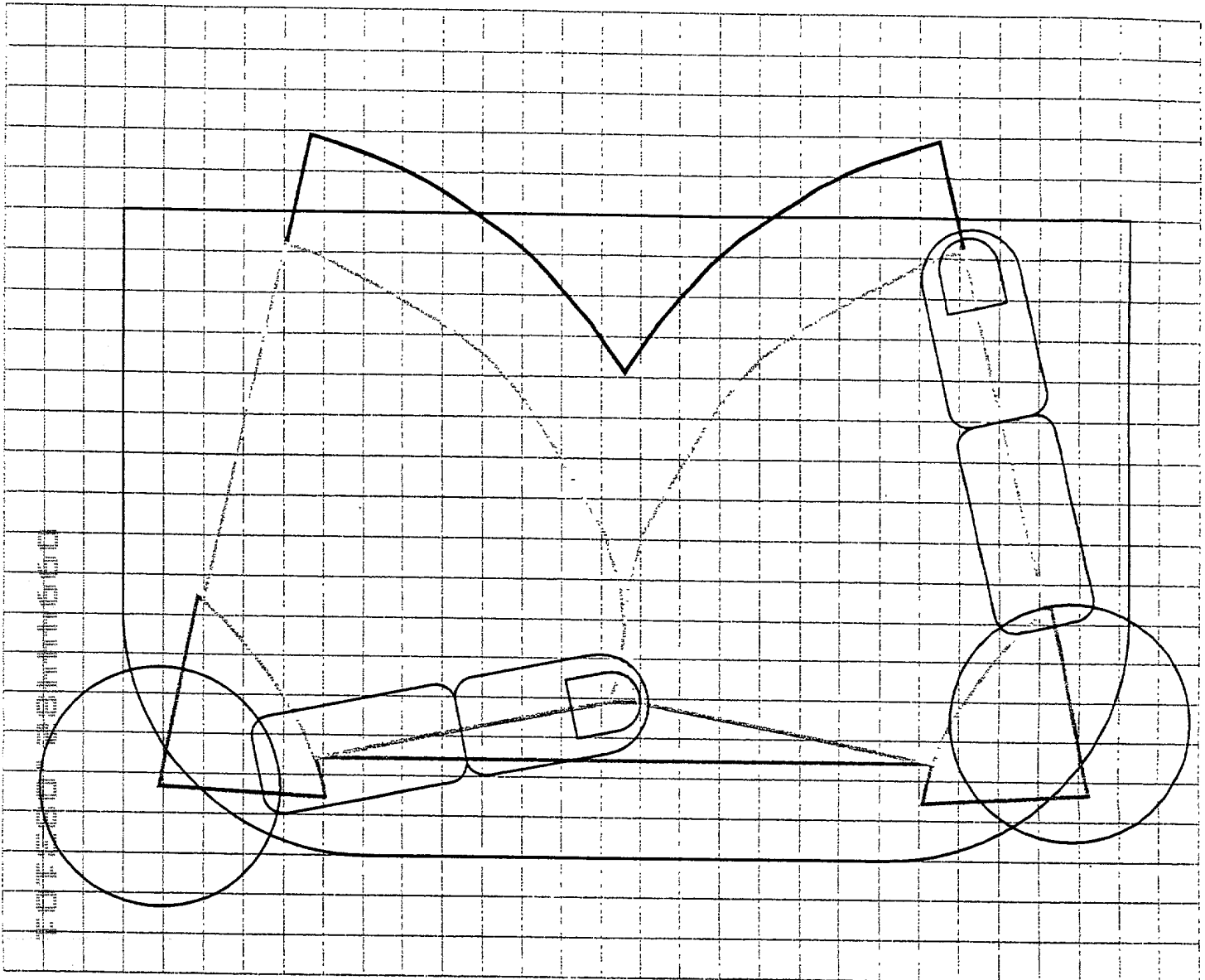
combined male and female

1. Used reach envelope of 50% woman with relaxed grip (not pich or extended reach).
2. Drew geometry to represent the approx dims of 50% woman. Circle represents the palm at the base and crotch of the thumb.
3. Rotated the reach envelope approx 15° to more closely resemble the hand posture of holding a game controller.
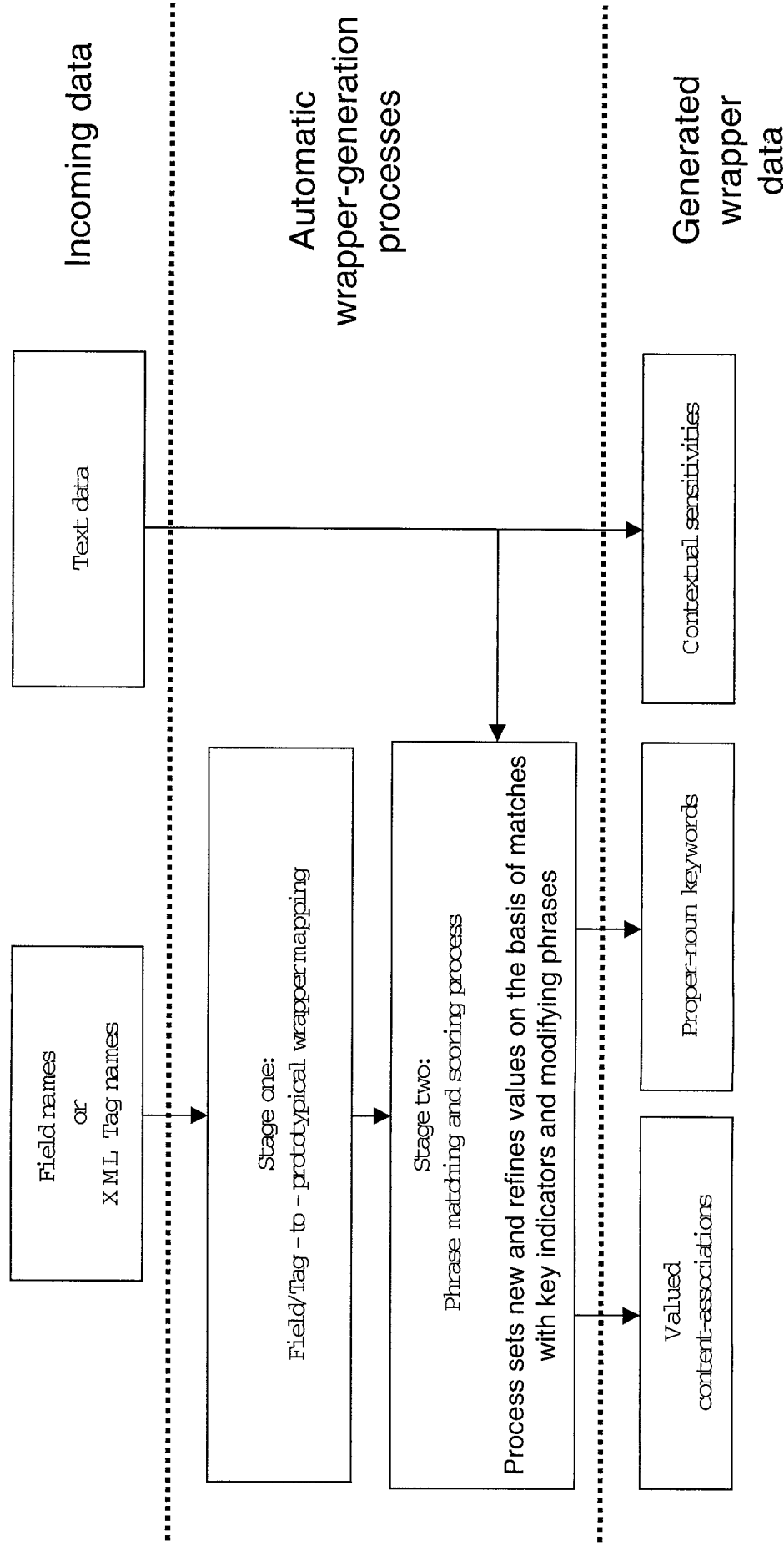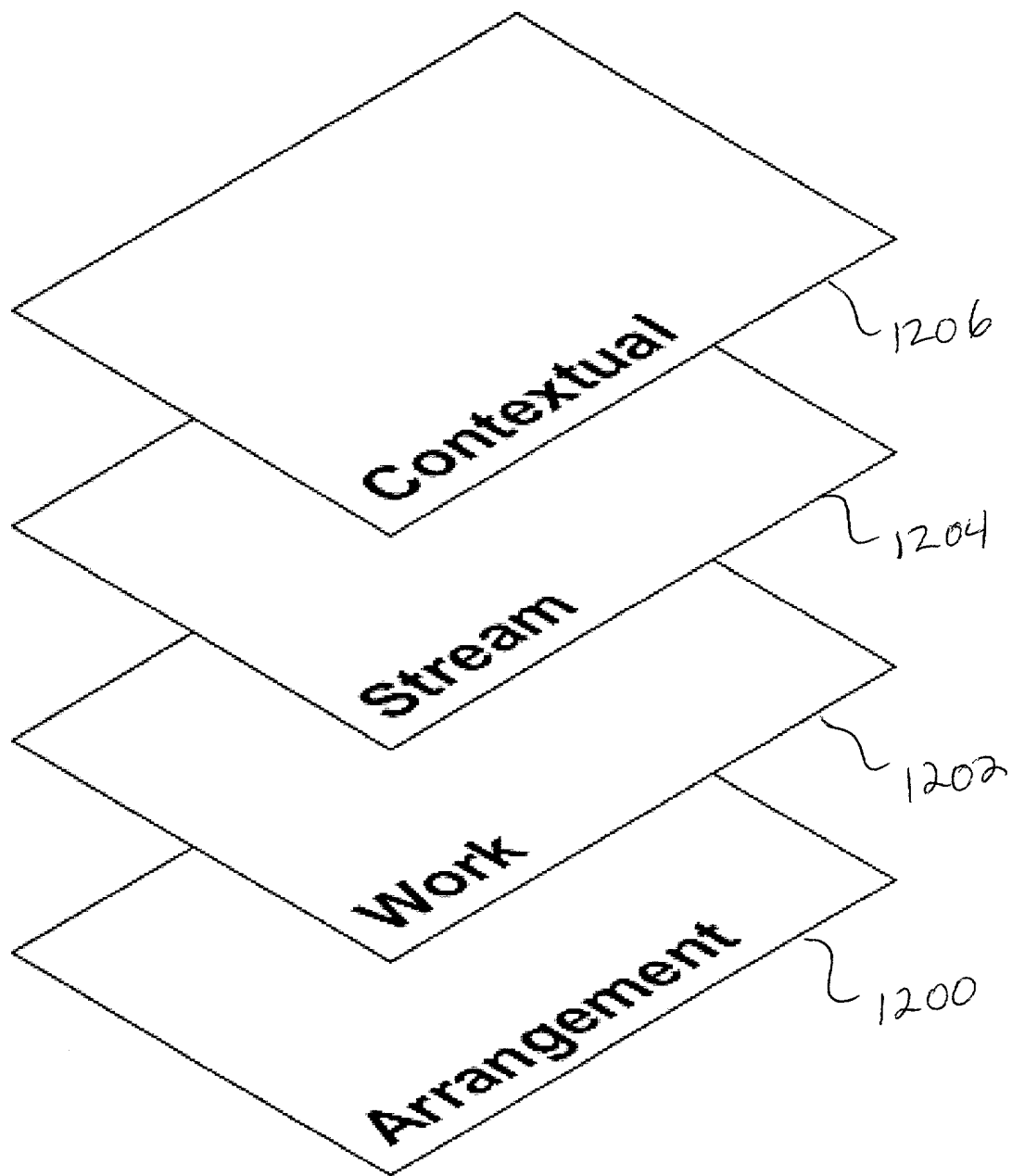
Fig 10Y

C39

Automated Wrapping Process

Incoming data
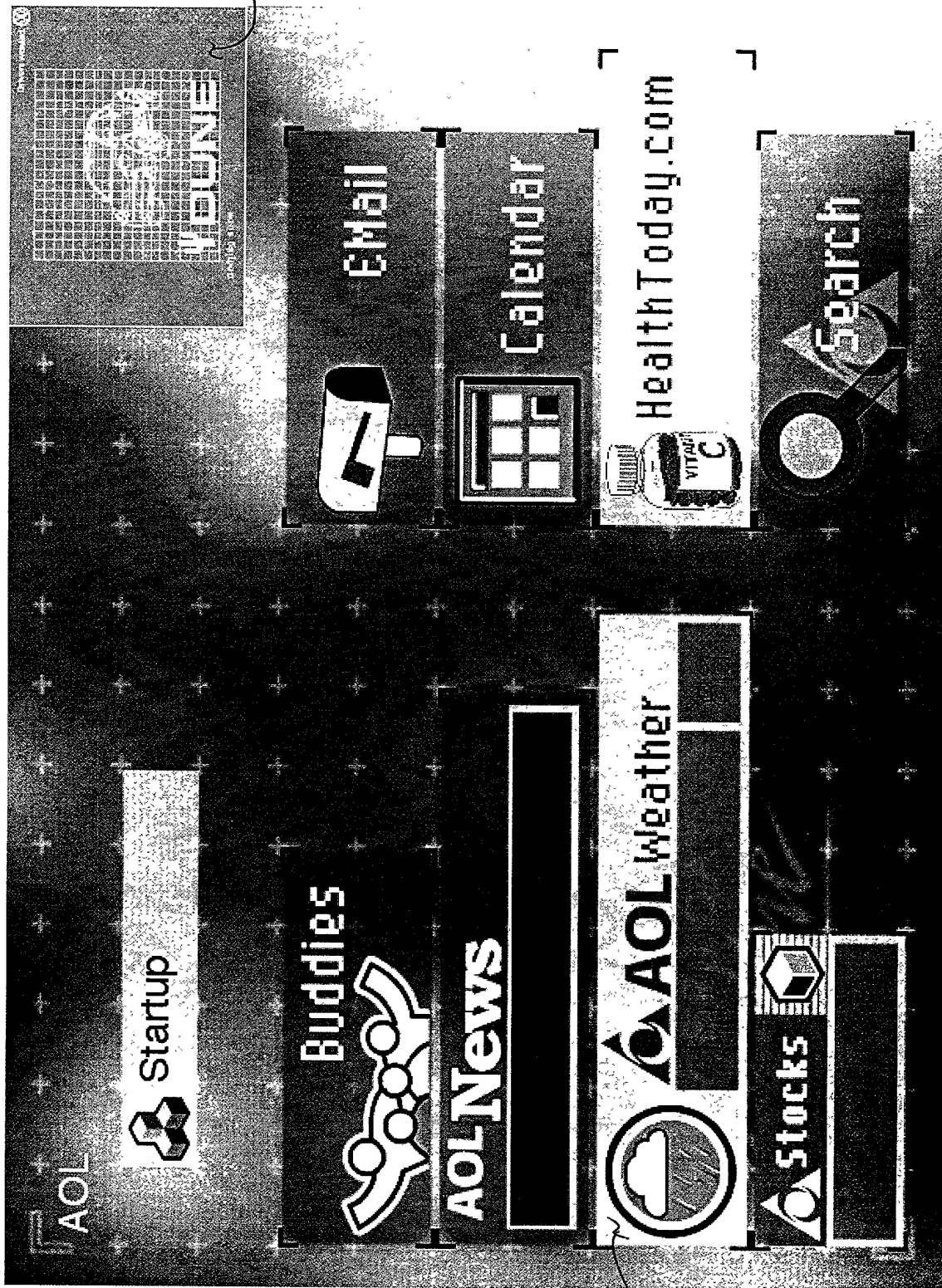
Automatic wrapper-generation processes

Generated wrapper data

| Text data |

| Field names or X M L Tag names |

| Stage one: Field/Tag – to – prototypical wrapper mapping |

| Stage two: Phrase matching and scoring process Process sets new and refines values on the basis of matches with key indicators and modifying phrases |

| Contextual sensitivities |

| Proper-noun keywords |

| Valued content-associations |

Figure *11*

Contextual 1206

Stream 1204

Work 1202

Arrangement 1200

Fig. 12

Fig. 13A

Fig 13b

FOTESO° Seattle60

AOL

Disney

iPaq

shockwave

mobileflash

Home

Work

Utilities

Other

QuickFind

Switcher Items

AMERICA Online

Fig. 14A

AOL

Disney

iPaq

shockwave

mobileflash

Home

Work

Utilities

Other

QuickFind

Switcher Items

AMERICA *Online*

Fig 14B

AOL
Disney
iPaq
shockw...
mobile...

Work
Utilities
Other
QuickFind
Switcher Items

AMERICA online

Fig 14C

AOL

Disney

iPaq

QuickFind

Switcher Items

Fig 14D

Fig. 14E

Fig. 15

Fig 16

Switcher Items

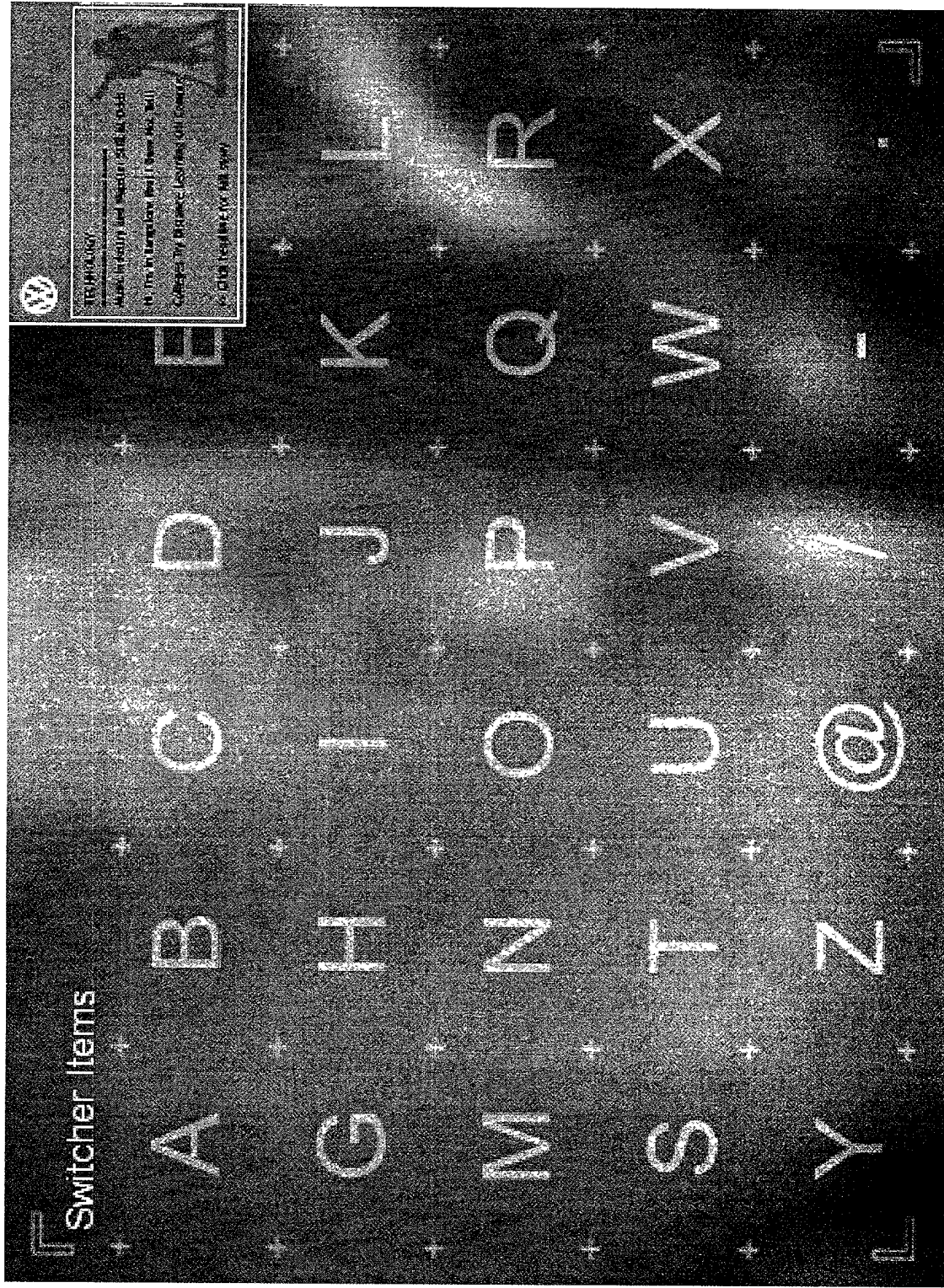| A (AOL)	B	C	D	E	F
G	H	I	J	K	L
M	N	O	P	Q	R
S	T	U	V	W	X
Y	Z	@	/	-	.
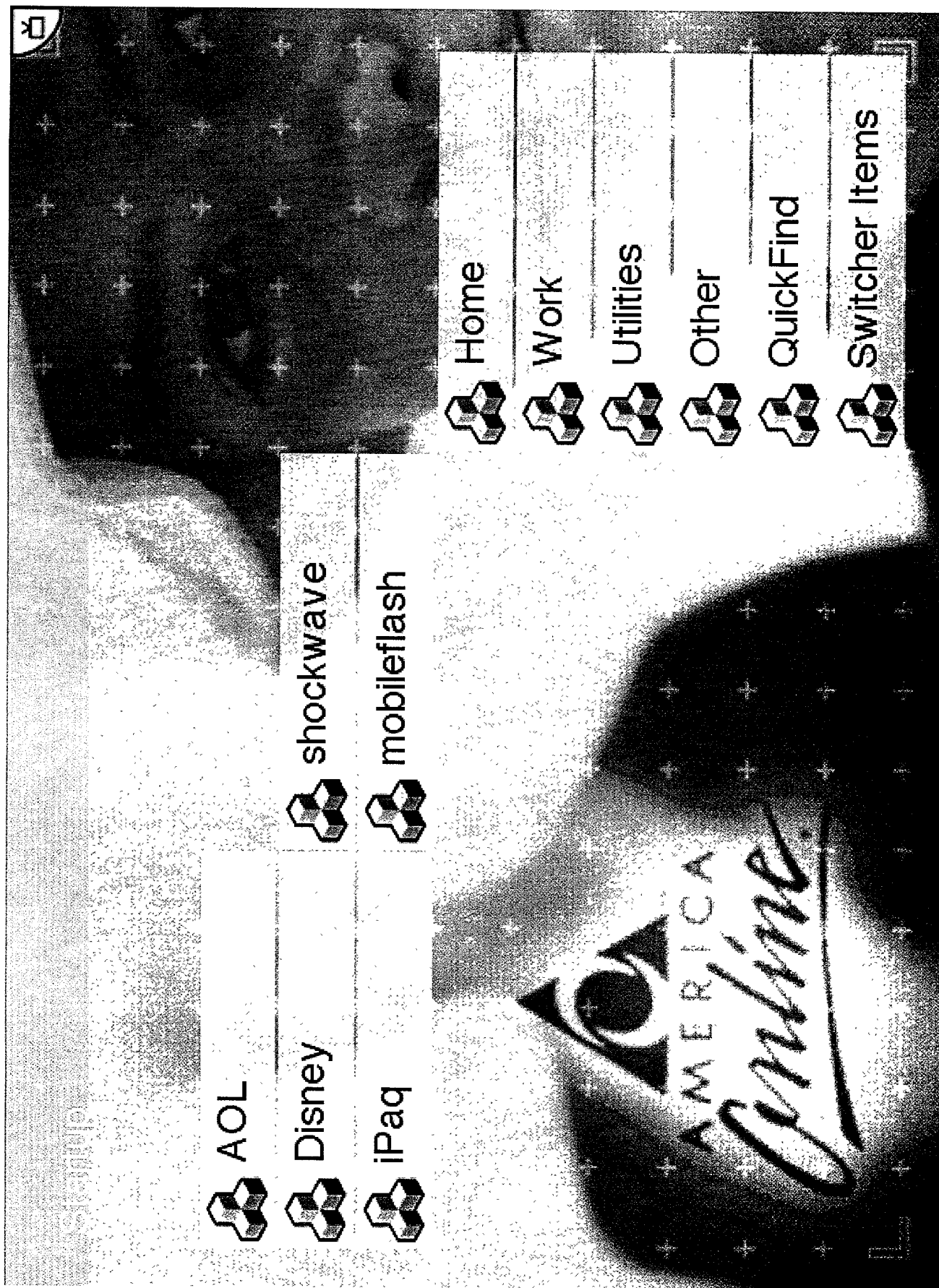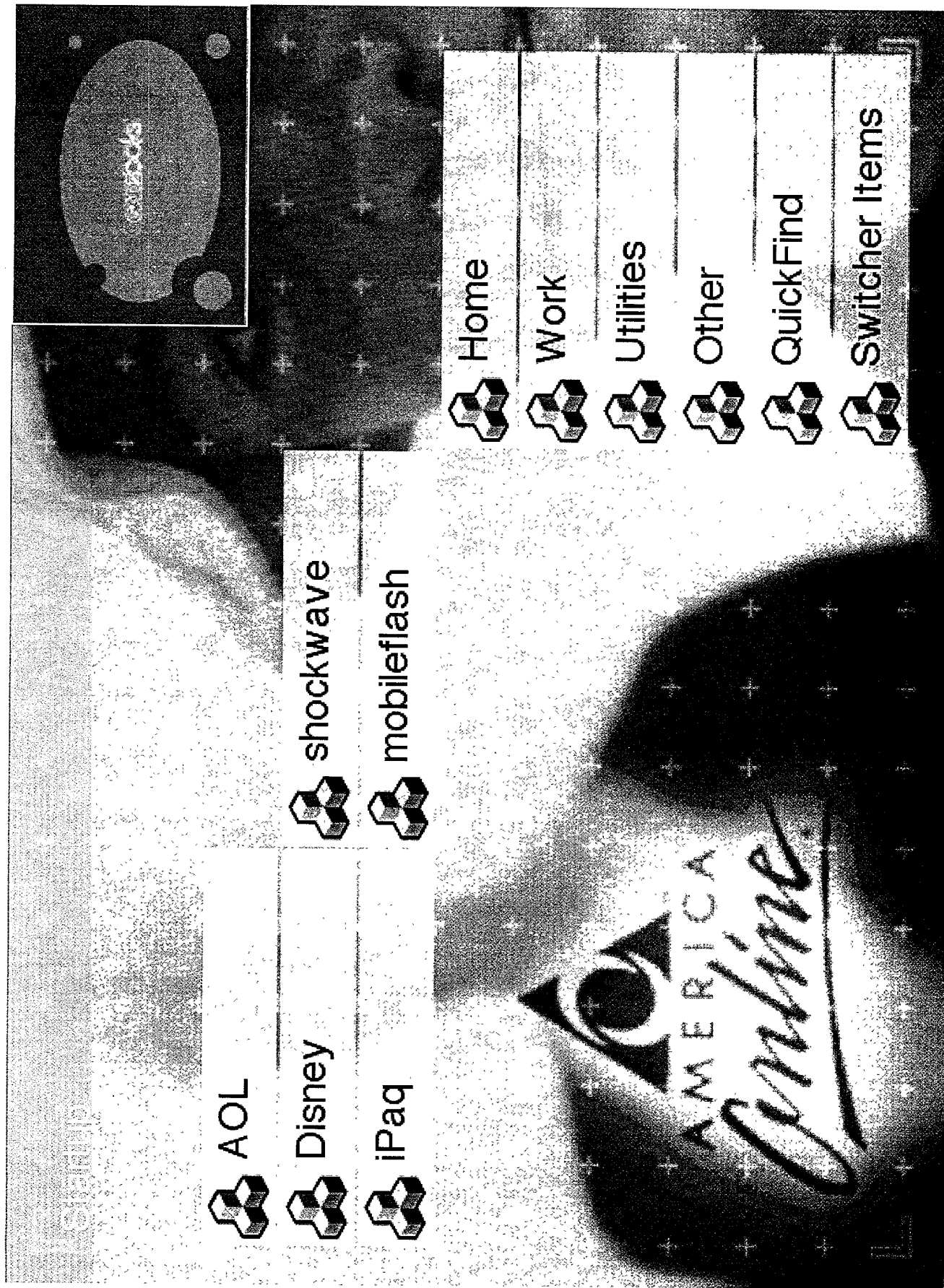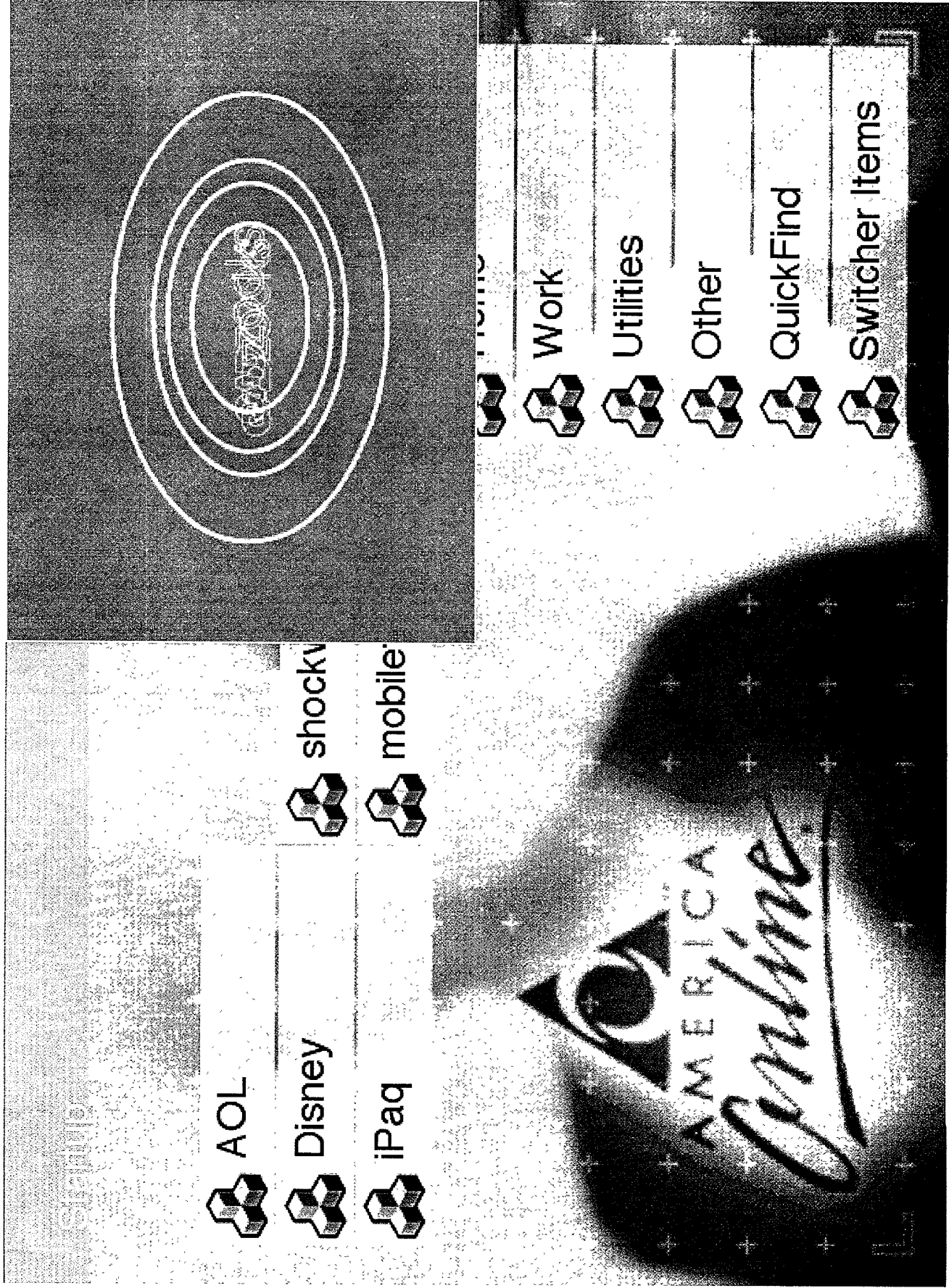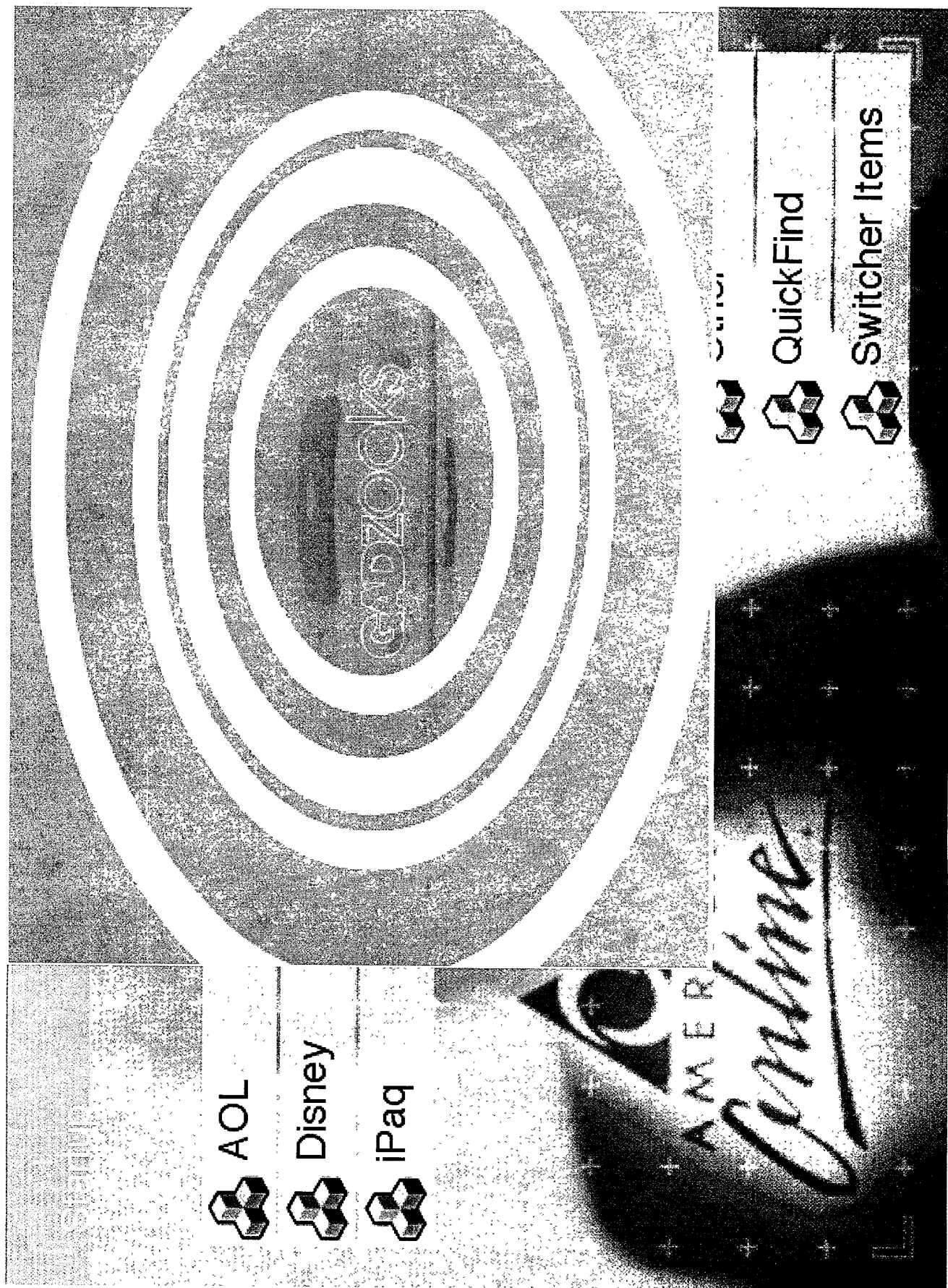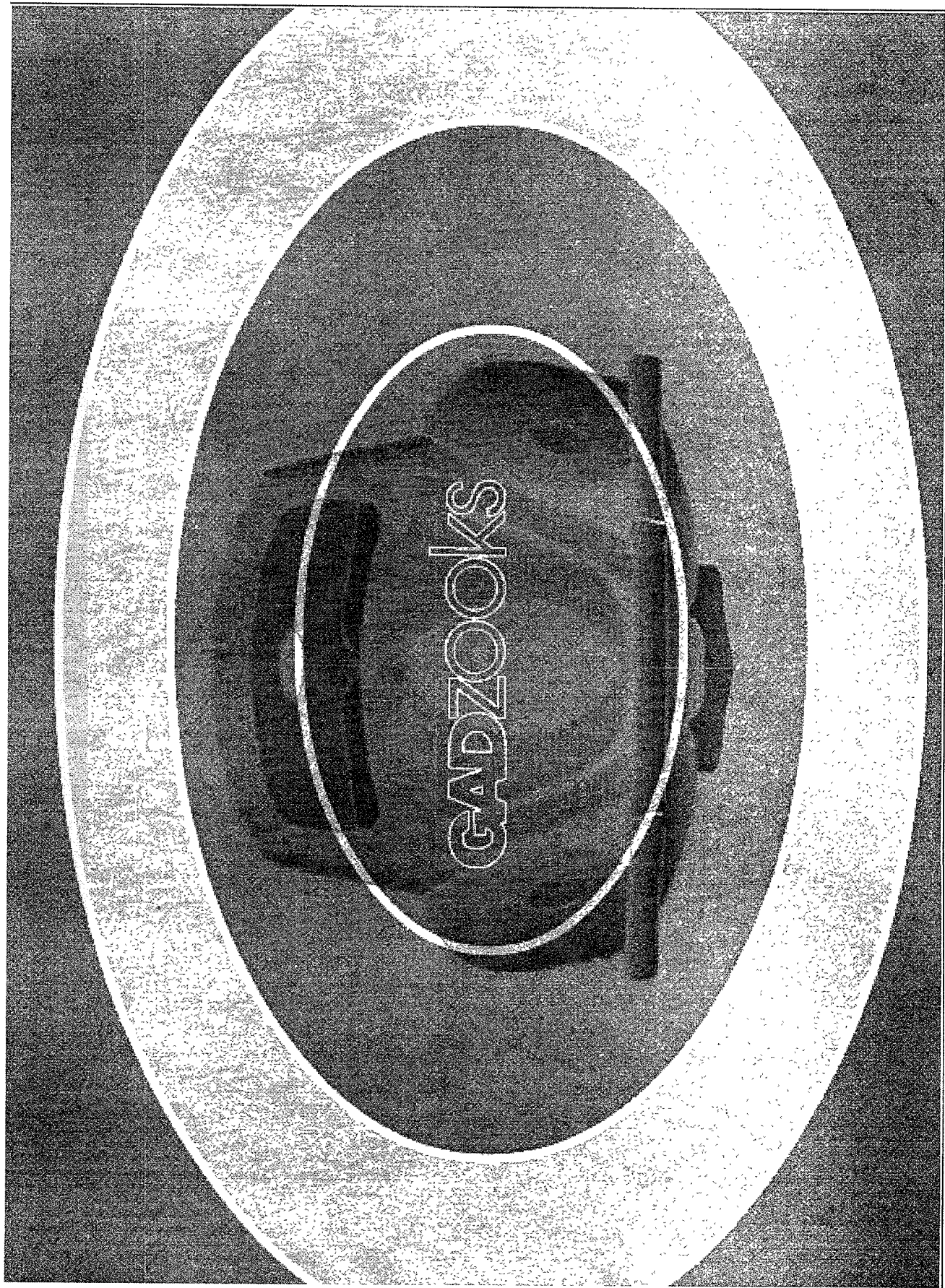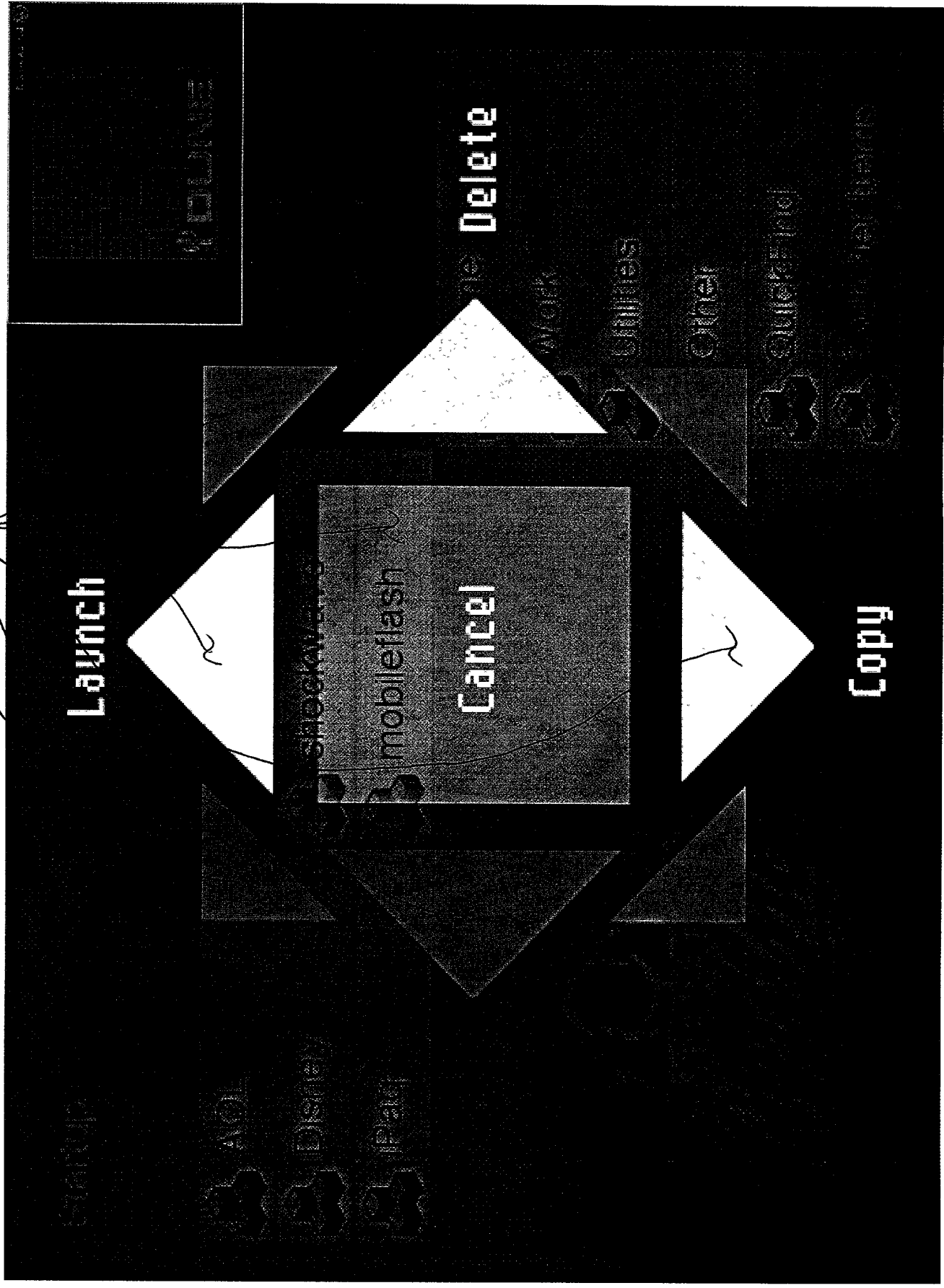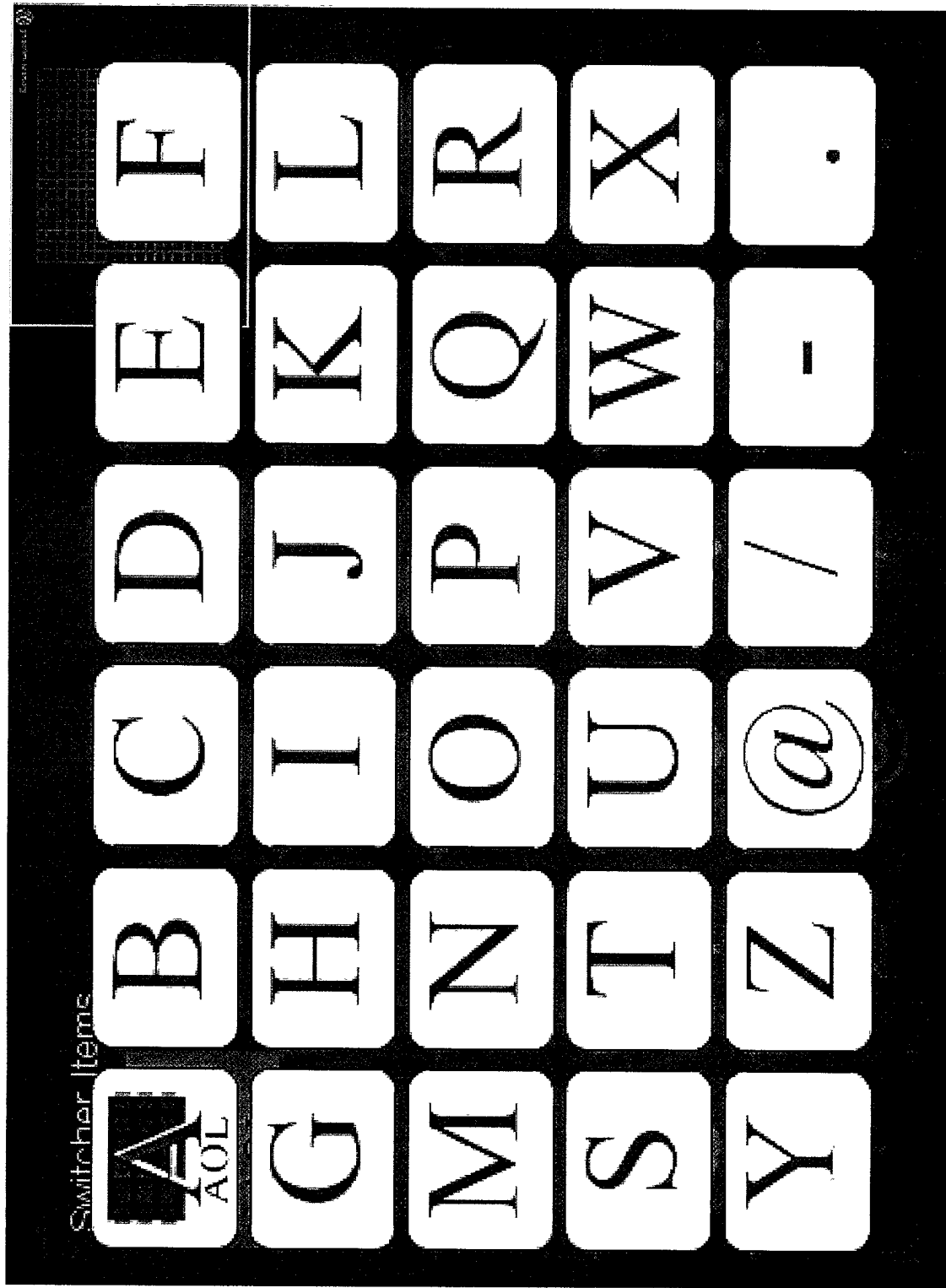
Fig. 17A

Fig 17B

Fig 17c

187b

Fig. 17D

Fig. 18A

Fig 18B

TOTESO° 26f4f05560

Settings

Other

Time & Location   Joysticks
Power   Security
Wireless Radio   Personal Info
Display   Device Info
Sound   UI Settings
Alerts
Keyboard

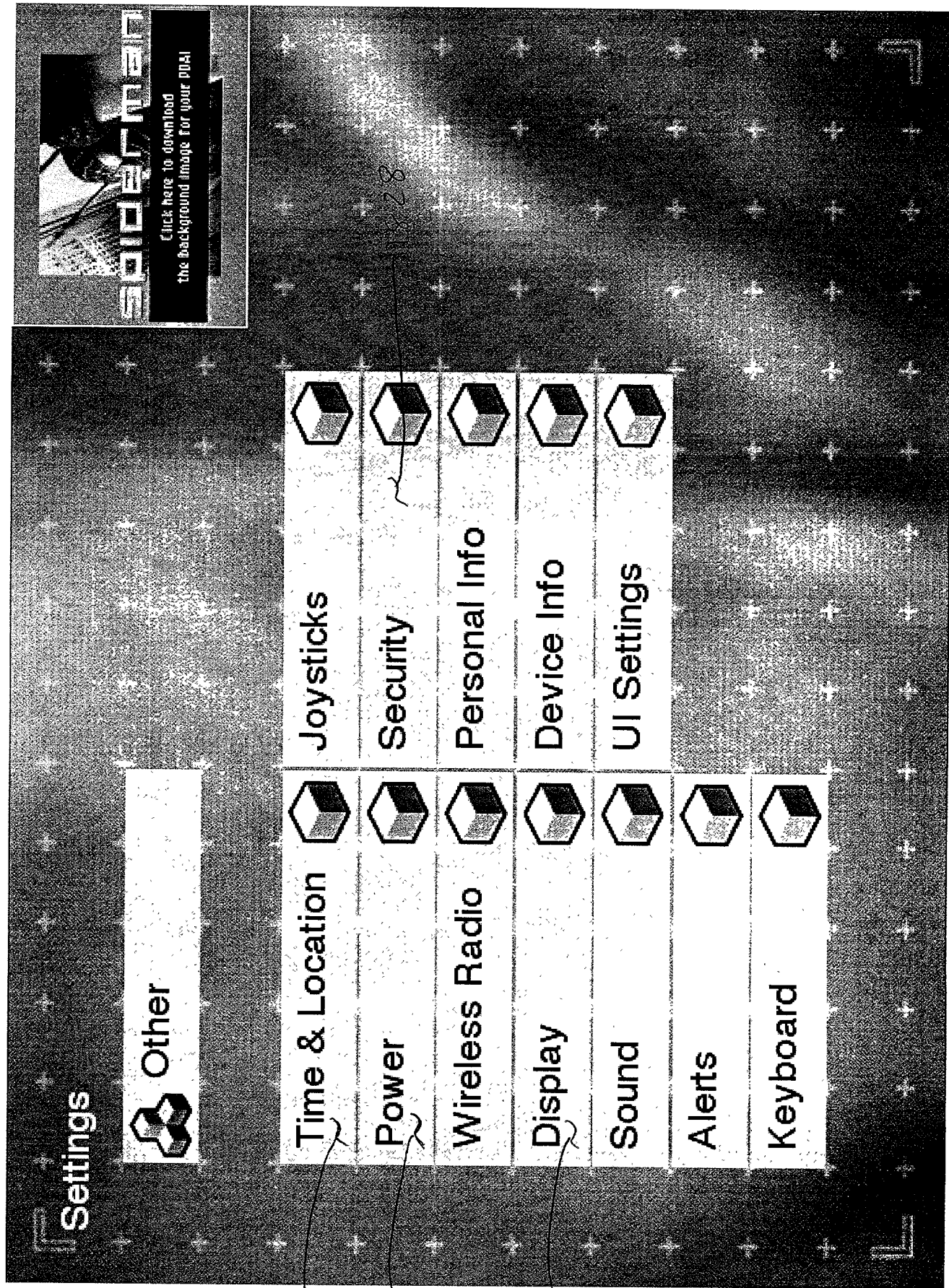spiderman
Click here to download
the background image for your PDA!

1828

1822
1824
1826

Fig 18C

Fig 18D

Fig. 19